STATEMENT OF WORK
FOR
CONTRACTOR SUPPORT SERVICES TASK ORDER
UNDER SEAPORT-E CONTRACT

NAVAL AIR WARFARE CENTER
TRAINING SYSTEMS DIVISION
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Table of Contents

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1. SCOPE

This Statement of Work (SOW) establishes the requirements for the Contractor Support Services (CSS) Task Order (TO) to be placed under the SEAPORT-E Multiple Award Contract (MAC). These services encompass a wide range of corporate operations, research and technology, program management, logistics, engineering, instructional systems, and test and evaluation support for training systems managed by the Naval Air Warfare Center Training Systems Division (NAWCTSD). These services will be provided for the following Program Directorates: Research and Technology (46T), Corporate Operations (COPS), Aviation (PDA), Surface (PDS), Undersea (PDU), Cross Warfare (PDX), and International (PDI). Requirements for these services will occur throughout the entire acquisition cycle from concept refinement through operation and support. It is anticipated that one TO will be awarded. The tasks required in this SOW are within the scope of the SEAPORT-E SOW. No item in this SOW shall be used to procure any services which are inherently governmental services or personal services in accordance with FAR 7.3 "Contractor versus Government Performance".

2. APPLICABLE DOCUMENTS

The following documents of the issue listed form a part of this SOW to the extent specified herein. In the event of a conflict between documents referenced herein and the contents of this SOW, the contents of this SOW take first precedence. Nothing in this SOW, however, supersedes applicable laws and regulations, unless a specific exemption has been obtained.

2.1 Government Documents

Chairman of the Joint Chiefs of Staff Instruction

CJCSI 6510.01F - Information Assurance (IA) and Computer Network Defense (CND), dated 9 February 2011

Code of Federal Regulations (CFR)

5 CFR, 731.202 (b) - Criteria for Making Suitability Determinations

The above regulation are available at http://www.access.gpo.gov/nara/cfr/waisidx_09/5cfr731_09.html

22 CFR, Parts 120 - 130 - Foreign Relations, Chapter I - Department of State, Subchapter M - International Traffic in Arms Regulations

(The above regulations are available at http://www.pmddtc.state.gov/regulations_laws/itar_official.html

29 CFR 1910.147 - The control of hazardous energy (lockout/tagout)

(OSHA standards are downloadable from http://www.osha.gov)

United States Code

Title 5 of the U.S. Code, Section 552.a	- Privacy Act of 1974 (Downloadable from http://uscode.house.gov/search/criteria.shtml

DOD and Department of the Navy (DON) Security and Information Assurance (IA) Instructions, Manuals, Policy Memos, and Guidance Documents

DODD 8500.01E	Information Assurance dated 23 April 2007
DODI 8500.2	- Information Assurance (IA) Implementation dated 6 Feb 2003
DOD 5200.2-R	- Personnel Security Program, dated January 1987, Change 3 dated 23 February 1996
DOD 5220.22-M	- National Industrial Security Program Operating Manual, dated 28 Feb 2006
DODI 8510.01	- DOD Information Assurance Certification and Accreditation Process (DIACAP), dated 28 Nov 2007
DOD 8570.01-M	- Information Assurance Workforce Improvement Program dated 19 December 2005, Change 2 dated 20 April 2010
DON DIACAP Handbook (Unnumbered)	- DON DOD Information Assurance Certification And Accreditation Process (DIACAP) Handbook series , dated 15 Jul 2008

The above IA documents are available at http://nawctsd.navair.navy.mil/Resources/Library/IA/Index.cfm.
The NISPOM is available at http://www.dtic.mil/whs/directives/corres/pub1.html

Office of the Intelligence Community Directives

DCID 6/3	- Protecting Sensitive Compartmented Information within Information Systems of 5 June 1999

(Above is a limited distribution document. Copies can be obtained by contacting the Office of the Intelligence Community Chief Information Officer)

Department of the Navy Instruction

SECNAVINST 5510.30A	- Department of the Navy Personnel Security Program of 10 March 1999
SECNAVINST 5239.19	- Department of the Navy Computer Network Incident Response and Reporting Requirements

Federal Acquisition Regulations (FAR)

FAR 52.204-9 - Personal Identity Verification of Contractor Personnel

FAR 52.222-54 - Employment Eligibility Verification

(FAR Clauses are downloadable from http://farsite.hill.af.mil/vffara.htm)

International Organization for Standardization/International Electro-technical Commission (ISO/IEC)

ISO/IEC 27002:2005 - Information technology - Security techniques - Code of practice for information security management (Redesignation of ISO/IEC 17799:2005)

(Copies of this document are available from http://www.ansi.org)

3. REQUIREMENTS

3.1 General Requirements

The following general requirements shall apply to all labor categories that are described in 3.2.2.

3.1.1 Contractor Program Management

The Contractor shall organize, coordinate, and control all Contractor activities to ensure compliance with TO performance, cost, and schedule requirements. The Contractor shall monitor the progress of all work performed and cost incurred under the contract. The Contractor shall prepare the Contractor's Progress, Status, and Management Report (CPSMR) in accordance with (IAW) the Contract Data Requirements List (CDRL) B001.

3.1.2 Post Award Conference

The Contractor shall participate in a Post Award Conference in Orlando, Florida to establish the framework of the Contractor and Government interaction during the performance period of the TO.

3.1.3 Personnel Appearance and Conduct

Contractor personnel shall comply with all applicable rules, regulations, directions, and requirements pertaining to conduct of personnel on a military installation. The Contractor shall recognize the authority of the military Commander to suspend, restrain, or restrict the activities of Contractor personnel for the protection of personnel and equipment under his military jurisdiction. Contractor personnel shall wear a Contractor-provided identification badge and a "Navy Contractor Badge" while performing work for the Navy. Contractor personnel shall identify themselves as a Contractor in all verbal and written communication means while performing work for the Navy. When attending meetings in support of the Navy, Contractor personnel shall introduce themselves as a contract employee working for the Navy. Contractor personnel shall sign a non-disclosure statement relative to Government business sensitive information.

3.1.4 Place of Performance and Working Hours

3.1.4.1 Place of Performance

The primary work locations for this TO shall be NAWCTSD Orlando, 12350 Research Parkway, Orlando, FL 32826 (Buildings: DeFlorez, Partnership I, II, III, and Research Commons) and/or the Contractor's facility. The Contractor's facility shall be located within 25 driving miles per Mapquest.com from NAWCTSD and shall provide space for up to 20% of the estimated labor hours required by the TO. Work may also be accomplished at an alternate site anywhere within the United States or its Territories when deemed advantageous by the Government. The Contractor's facility shall include normal office automated equipment.

3.1.4.2 Working Hours

The Contractor shall provide the required services and staffing coverage during normal working hours (NWHs) as observed by Government personnel at each site supported. NWHs vary from 8 to 9 hours daily (not including a 30-minute lunch break). Some supported Government offices have flexibility to start as early as 0600 and end as late as 1800 Monday-Friday. Services and staffing shall be provided for each office at least 8 hours per day (excluding the 30 minute lunch break).

Government employees are allowed to voluntarily work a "Compressed Work Schedule" (CWS). CWS is an alternative work schedule to the traditional five 8 hour workdays per week. Under a CWS schedule an employee completes the following schedule within a two-week period of time: eight weekdays are worked at 9 hours each, one Friday is alternately worked as 8 hours and one Friday is not worked. The result is 80 hours worked every two weeks, with 44 work hours one week and 36 hours the other. The Contractor, with agreement by the Contracting Officer's Representative (COR), may allow its employees to work a CWS schedule (typically matching that of local Government employees). Any Contractor that chooses to allow its employees to work a CWS schedule in support of this contract agrees that any additional costs associated with the implementation of the CWS schedule vice the standard schedule are unallowable costs under this contract and will not be reimbursed by the Government. Additionally, the CWS schedule shall not prevent Contractor employees from providing necessary staffing and services when required by the Government.

3.1.5 Intranet

The Government will provide funding to the Contractor to acquire Naval Marine Corp Internet (NMCI) services (or future Intranet services) and equipment that are determined to be required in the performance of this TO. For personal working where NMCI (or future Intranet) connectivity is not available, the Contractor will ensure that internet connectivity is available to allow Secure Socket Layer-Virtual Private Network (SSL-VPN) access to NMCI (or future Intranet) using software that comes installed on NMCI (or future Intranet) computers. The Program Manager/Funding sponsor is responsible for determining what equipment is required.

3.1.6 Material

For purposes of restriction, the following types of materials will be considered allowable, pursuant to NAVAIR clause 5252.242-9515.

Allowable Direct Charges to the TO:

The following are allowable as direct charges to this TO: 1) Government approved travel cost, 2) general commercial incidental materials (non-end item deliverables) (e.g. cables, wires, panels, switches), 3) shipping cost for small items in support for tasking (e.g. documents, software media, hardware kits). Information Technology (IT) equipment and end-items, assemblies or components that constitute a deliverable are excluded as an allowable direct charge. Pursuant to NAVAIR clause, 5252.242-9515, prior written approval from the COR shall be required for all purchases of materials.

Not Allowable as Direct Charges to the TO:

The following are not allowable as direct charges to this TO: 1) All administrative services and supplies required for the administration of personnel performing under the TO (e.g. security clearances), 2) The cost of acquisition of general purpose office equipment and IT, 3) All Contractor business-related functions such as timekeeping and personnel administration, 4) Tele-communications (e.g. cell phones) equipment and services required for Contractor administrative purpose are not allowable.

3.1.7 Travel

When applicable, the Contractor shall be responsible for conducting trips necessary to accomplish the tasks identified herein. Travel shall be reimbursed IAW Joint Travel Regulation Requirements (JTR). Contractor personnel may be required to travel on average 10% of the time up to 40%.

3.1.8 Minimum Personnel Qualifications

The Contractor shall employ only personnel who meet the minimum qualifications provided under APPENDIX B and are fully qualified and competent to perform the tasks specified in this SOW. The Contractor shall ensure that such personnel are utilized in a manner that maximizes productivity and efficiency. For purposes of surveillance, resumes of Contractor personnel performing support services as described within this SOW are subject to verification by the COR to ensure that the support personnel meet or exceed the proposed category descriptions.

3.1.9 Privacy Act Compliance

The Contractor may be in contact with data subject to the Privacy Act (Title 5 of the U.S. Code, Section 552.a). The Contractor shall ensure that employees assigned to this effort understand and adhere to the Privacy Act of 1974. The Contractor shall identify and safeguard reports and data accordingly. The Contractor shall follow agency procedures in compliance with the Privacy Act. The Contractor shall ensure that Contractor employees assigned to the TO are briefed annually on properly identifying and handling privacy act data and information.

3.1.10 Security Requirements

Some Government data, systems, and workspaces are classified. The work contracted for is in the interest of National Defense. No information relating to the work shall be communicated, transmitted, or disclosed to any person not entitled to receive it. It is anticipated that some of the assigned work will be of classified nature. Approximately 90% of all the position/labor category

equivalents require a Secret Security clearance at a minimum. Some positions/labor categories (fewer than 3% of all position/labor category equivalents) may require a Top Secret Security clearance. Security clearance shall be obtained prior to reporting on-site for work. The Contractor shall provide personnel who hold a security clearance that meets the security requirements of the program. No discussion, processing or storage of Top Secret information is required at the Contractor's facility.

3.1.10.1 Security (Classified Systems)

The Contractor shall safeguard classified information and meet the security requirements identified in the DD Form 254. The Contractor shall enforce these safeguards throughout the life of the contract including the transport and delivery phases.

3.1.10.2 Operations Security (OPSEC)

The Contractor shall provide OPSEC protection for classified information and sensitive information. Security policy, procedures, and requirements for classified information are provided in DOD 5220.22-M. The Contractor shall enforce these safeguards throughout the life of the contract including the development, delivery, support phases, and the disposition/storage of classified and controlled unclassified information at contract completion. If the Contractor does not have an established OPSEC Plan that addresses the protection of proprietary, sensitive, or controlled unclassified information, the Government will provide a template for the development of an OPSEC Plan. The Contractor shall prepare the OPSEC Plan IAW the CDRL A001.

3.1.10.3 Information Security Requirements for Protection of Unclassified DOD Information on Non-DOD Systems

The Contractor shall safeguard unclassified DOD information stored on non-DOD information systems to prevent the loss, misuse, and unauthorized access to or modification of this information. The Contractor shall:

a. Not process DOD information on public computers (e.g., those available for use by the general public in kiosks or hotel business centers) or computers that do not have access control.

b. Protect information by no less than one physical or electronic barrier (e.g., locked container or room, login and password) when not under direct individual control.

c. Sanitize media (e.g., overwrite) before external release or disposal.

d. Encrypt the information that has been identified as Controlled Unclassified Information (CUI) when it is stored on mobile computing devices such as laptops and personal digital assistants, or removable storage media such as thumb drives and compact disks, using the best available encryption technology.

e. Limit information transfer to Sub Contractors or teaming partners with a need to know and a commitment to at least the same level of protection.

f. Transmit e-mail, text messages, and similar communications using technology and processes that provide the best level of privacy available, given facilities, conditions, and environment. Examples of recommended technologies or processes include closed networks, virtual private networks, public key-enabled encryption, and Transport Layer Security (TLS).

g. Encrypt organizational wireless connections and use encrypted wireless connection, where available, when traveling. When encrypted wireless is not available, encrypt application

files (e.g., spreadsheet and word processing files), using no less than application-provided password protection level encryption.

h. Transmit voice and fax transmissions only when there is a reasonable assurance that access is limited to authorized recipients.

i. Not post DOD information to Web site pages that are publicly available or have access limited only by domain or Internet protocol restriction. Such information may be posted to Web site pages that control access by user identification or password, user certificates, or other technical means and provide protection via use of TLS or other equivalent technologies. Access control may be provided by the intranet (vice the Web site itself or the application it hosts).

j. Provide protection against computer network intrusions and data exfiltration, including no less than the following:

(1) Current and regularly updated malware protection services, e.g., anti-virus, anti-spyware.

(2) Monitoring and control of inbound and outbound network traffic as appropriate (e.g., at the external boundary, sub-networks, individual hosts) including blocking unauthorized ingress, egress, and exfiltration through technologies such as firewalls and router policies, intrusion prevention or detection services, and host-based security services.

(3) Prompt application of security-relevant software patches, service packs, and hot fixes.

k. Comply with other current Federal and DOD information protection and reporting requirements for specified categories of information (e.g., critical program information, Personally Identifiable Information (PII), export controlled information) IAW the requirements of the contract.

l. PKI certification may be required by the TO.

3.1.11 Personnel Security - Background Check (Physical Access to and Working on DOD Installations)

The Common Access Card (CAC) shall be the principal identity credential for supporting interoperable access to DOD installations, facilities, buildings, and controlled spaces. A National Agency Check with Inquiries (NACI) or equivalent national security clearance (e.g. National Agency Check with Local Agency Checks including Credit Check (NACLC)) will be required for permanent issuance of the credential. The Government may issue the credential upon favorable return of the Federal Bureau of Investigations (FBI) fingerprint check, pending final favorable completion of the NACI or equivalent. There shall be no additional NACI or equivalent submission for an individual holding a valid national security clearance. Access to restricted areas, controlled unclassified information (sensitive information), or Government equipment by Contractor personnel shall be limited to those individuals who have been determined trustworthy as a result of the favorable completion of a NACI (or equivalent) or who are under the escort of appropriately cleared personnel. When escorting such persons is not feasible, a NACI (or equivalent) shall be conducted and favorably reviewed by the appropriate DOD component, agency, or activity prior to permitting such access. The Contractor shall use the Standard Form 85P (Questionnaire for Public Trust Positions) in order to obtain the CAC and access to controlled unclassified information. The Contractor shall submit the Standard Form 85P to the NAWCTSD Security Manager for processing.

3.1.11.1 Government-Issued Personal Identification Credentials

The Contractor shall account for all forms of U.S Government-provided identification credentials (CAC or U.S. Government-issued identification badges) issued to the Contractor (or their employees in connection with performance) under the contract. The Contractor shall return such identification credentials to the issuing agency at the earliest of any of the following, unless otherwise determined by the U.S. Government:

a. When no longer needed for contract performance.
b. Upon completion of the Contractor employee's employment.
c. Upon contract completion or termination.

3.1.11.2 Personnel Security – Background Checks (Contractor Facility)

Contractor personnel working in the Contractor's own facilities shall undergo the company internal vetting process prior to gaining access to U.S. Government controlled unclassified information. The Contractor shall use the Standard Form 85P (Questionnaire for Public Trust Positions) in order to gain access to U.S. Government controlled unclassified information. The Contractor shall submit the Standard Form 85P to the NAWCTSD Security Manager for processing. The Contractor shall ensure that foreign persons, as defined under section 120.16 of the International Traffic and Arms Regulation (ITAR) (22 CFR, Parts 120-130), are not given access to U.S. Government controlled unclassified information, sensitive information, defense articles, defense services, or technical data, as defined in the ITAR, Part 120.

3.1.11.3 Information Assurance (IA) and Personnel Security Requirements for Accessing Government Information Technology (IT) Systems - Suitability/Positions of Public Trust

The Contractor shall comply with the IA and personnel security requirements for accessing U.S. Government IT systems specified in the contract. Contractors requiring access to U.S. Government IT systems will be subject to a background check. The Contractor shall review and become familiar with the suitability factors presented in 5 CFR, 731.202(b), to use as an aid in their employee selection process. The NAWCTSD Security Office will make final determinations of suitability for individual Contractors.

3.1.11.4 Unclassified Contractor–Owned Network Security

The Contractor shall take means (defense-in-depth measures) necessary to protect the confidentiality, integrity, and availability of Government controlled unclassified information in the same manner as the Contractor would protect its own company proprietary information. The Contractor shall manage and maintain Contractor-owned or operated unclassified IT network assets (including computer assets used for Contractor Teleworkers) used to process U.S Government controlled unclassified information (sensitive information) IAW commercial best practices, vendor-specific, or other nationally or internationally-recognized IT configuration and management standards (e.g., Center for Internet Security (CIS), Control Objectives for Information and related Technology (COBIT®), Common Criteria, National Information Assurance Program (NIAP), DOD, Defense Information Systems Agency (DISA), International Computer Security Association (ICSA), National Industrial Security Program (NISP), National Security Agency (NSA), System Administration, Networking, and Security Institute (SANS), and ISO/IEC 27002:2005. The Contractor shall prevent U.S. Government controlled unclassified information from being placed or stored on peer-to-peer applications or social media

applications on Contractor owned networks, including Teleworker computer assets. The Contractor shall manage and control networks (which contain U.S. Government controlled unclassified information) serving in a Continuity of Operations (COOP) capacity to meet the same personnel and security requirements identified in this SOW and the DD-Form-254.

3.1.12 Government Property Requirements

Work performed by the Contractor that is related to the contract is fully Government funded by the Department of the Navy, and NOT privately funded. Pursuant to the FAR and DFARS: The Government shall acquire Unlimited Rights in Technical Data and Computer Software conceived, produced, or delivered during performance by the Support Service Contractor in the course of, or related to the contract. The Government will have patent rights in any invention conceived or reduced to practice during performance by the Contractor in the course of or related to this contract. The items purchased and the items developed for TO implementation shall be delivered to the Government not later than the conclusion of the TO.

3.1.13 Computer Proficiency

Contractor personnel shall be proficient in the utilization of electronic and software tools including Microsoft Office and Project, and shall possess an aptitude to facilitate rapid understanding of alternative electronic and software tools usage without hindering the support of the assigned tasks.

3.1.14 Safety Standards

Contractor personnel, although recognized as employees under the administrative control of the Contractor, shall comply with the directives and requirements of the NAWCTSD Orlando Commanding Officer regarding safety standards and security regulations while working on or at a Government facility. Contractor personnel shall be subject to safety and security inspections and investigations at all times. Contractor personnel shall immediately report any accident/incident with safety/security implications and other conditions or incidents that could be reasonably expected to be of interest to the Government. Initial reports may be verbal, but shall be followed up in writing within twenty-four (24) hours. All reports shall be forwarded to the COR.

3.1.15 Conferences and Meetings Support

The Contractor shall track action items generated at meetings using a tracking system. The Contractor shall provide status of action items in the Contractor's Progress, Status, and Management Report (CPMSR) cited above. The Contractor shall prepare Conference Minutes IAW the CDRL B003.

3.1.16 Delivered Data

Data shall be delivered IAW the attached CDRLs, DD Forms 1423, which cite the DIDs or other appropriate reference for technical data and other information required during the performance of this TO.

3.1.17 Incurred Cost and Progress Reporting

In order to support invoice reviews conducted as part of proper surveillance, the Contractor shall report incurred cost and progress in accordance with NAVAIR clause 5252.232-9529, "Incurred cost and Progress Reporting for Services," CDRL B002 and contract attachment number 6.

3.1.18 Contractor Manpower Reporting Application (CMRA)

The contractor shall report all contractor labor hours (including subcontractor labor hours) required for performance of services provided under this contract for NAWCTSD via a secure data collection site. The contractor is required to completely fill in all required data fields using the following web address: **https://doncmra.nmci.navy.mil**. Inputs will be reported for the labor executed during the period of performance during each Government fiscal year (FY), which runs October 1 through September 30. While inputs may be reported any time during the FY, all data shall be reported no later than October 31 of each calendar year. Any corrections to previously reported data shall be addressed with an explanation. Contractors may direct questions concerning CMRA to the help desk, at this link: **https://doncmra.nmci.navy.mil**.

3.2 Detailed Requirements

3.2.1 Program Directorates and Competencies

The following sections describe efforts to be accomplished by the Contractor in support of Government personnel responsible for NAWCTSD Orlando Program Directorates and Competencies. The Program Directorates and Competencies which require support are the Program Directorate for Research and Technology (46T), the Corporate Operations (COPS) Competency, the Program Directorate for Aviation (PDA), the Program Directorate for Surface (PDS), the Program Directorate for Undersea (PDU), the Program Directorate for Cross Warfare (PDX), and the Program Directorate for International Programs (PDI). The Contractor shall provide CSS personnel for the internal NAWCTSD CSS requirements in the paragraphs below that include NAWCTSD policy/procedures, NAVAIR policy/procedures, US Code, other requirements derived from the requirements context and other requirements as directed by the Government. The Contractor shall provide CSS in the paragraphs below for external Government contracts IAW external Government contract requirements and as directed by the Government. The Contractor shall provide CSS for Government determined internal and external requirements below. To meet requirements outlined in these paragraphs, the Contractor shall provide CSS in accordance with the labor categories set forth in Appendix A. Paragraphs 3.2.1.1 through 3.2.1.7 provide a brief description of how NAWCTSD Orlando supports its customers in each of the program directorates. Paragraphs in section 3.2.2 provide the required Contractor support for this effort. Only the labor categories identified in 3.2.2 sub-sections will be considered allowable direct charges under this TO.

3.2.1.1 Program Directorate for Research and Technology (46T)

The Research and Technology Program Directorate provides centralized management and executive direction for the NAWCTSD research and development (R&D) mission. This mission includes the planning and performance of a full range of directed research in support of Naval training systems for all warfare areas and platforms, maintaining an expanding Navy-critical

technology base, and transitioning research results to the fleet and other NAWCTSD customers. The Research & Technology Directorate mission also requires the management and execution of an active technology transfer program that transitions Department of Defense (DOD) developed technologies to other Government agencies such as the Department of Homeland Security (DHS) and to the public domain, and includes cooperative support of R&D activities with the Army and Air Force. The Contractor shall support efforts associated with science and technology and R&D by contributing knowledge to the theoretical underpinnings of human factors and human performance and, as transitioned, contribute to a wide range of training and operational applications. Program management focus includes management of cost, schedule, and performance of assigned programs and associated contracts. The Contractor shall provide the support requirements as specified within this SOW.

3.2.1.2 Corporate Operations (COPS) Competency

The NAWCTSD Corporate Operations (COPS) Competency provides the personnel, processes and skills required for the successful corporate support of the NAWCTSD team members and the Naval Aviation Systems (NAS) team. The COPS Competency directly and indirectly supports the Commanding Officer, Executive Officer, Executive Director, and other competencies, integrated program teams, external directed teams, and enterprise teams by providing the following services: information management, human resources, strategic management, business financial management, comptroller, public affairs, and security. The Contractor shall support the following Corporate Operations programs:

a. Command Strategies Leadership Support
b. Office of Small Business Programs (OSBP)
c. Inspector General/Command Evaluation & Control Office
d. Information Technology/Information Management
e. Total Force Strategy & Management
f. Security
g. Command Communication
h. Program & Business Analysis
i. Infrastructure Business Operations

3.2.1.3 Program Directorate for Aviation (PDA)

The PDA manages aviation training programs, systems and products relating to aviation weapon systems, platforms and environments, including aircraft, missiles, air traffic control, aviation systems, and other related systems. In addition, PDA supports aviation-related training provided by the Naval Education and Training Command (NETC) and its subordinate commands. Aviation training program products and services include, as a minimum, aircrew training devices, maintenance training devices, operator training devices, computer based training, courseware, distance learning, training analyses and research, Contractor operations and maintenance support services, training and instructional services, life cycle support services, distance learning, and training management systems, training center operations, database design and support. Program management focus includes management of cost, schedule, and

performance of assigned programs and associated contracts. The Contractor shall support the following Aviation programs, as a minimum:

a. Aerial Common Sensor (ACS)
b. AH-1
c. Air Traffic Control (ATC) training
d. AV-8B
e. Aviation School (ASCH) training
f. C-130
g. C-2
h. CH-53
i. Command Aircraft Crew Training (CACT)
j. Contractor Operation and Maintenance of Simulators (COMS)
k. E-2
l. E-6
m. EA-18G
n. EA-6B
o. EP-3
p. F-18
q. F-35 Joint Strike Fighter (JSF)
r. H-46
s. H-60
t. HH-65
u. HU-25
v. Landing Signal Officer (LSO) training
w. Marine Corps Aviation Training Systems (MCATS))/Training Transformation/Systematic Team Assessment of Readiness Training (START)
x. MH-53
y. Multimission Maritime Aircraft (MMA)
z. Naval Aviation Simulation Master Plan (NASMP)/Fleet Aircrew Simulator Training
aa. P-3
bb. S-3
cc. T-34
dd. T-44
ee. T-45
ff. T-57
gg. T-6 Joint Primary Aircraft Training Systems (JPATS)
hh. UH-1
ii. Undergraduate Military Flight Officer (UMFO)

jj. Unmanned Air Vehicle (UAV) training
kk. V-22
ll. VH-3
mm. VH-60
nn. VXX (VH-71)

3.2.1.4 Program Directorate for Surface (PDS)

The PDS manages surface and expeditionary warfare training programs, systems and products relating to the surface weapon systems, platforms and environment, including ships, warfare systems, damage control, navigation, engineering, tactical, operational, hull, mechanical, electrical other related systems. In addition, PDS supports surface-related training provided by the Naval Education and Training Command (NETC) and its subordinate commands. Surface training program products and services shall include, as a minimum, operational training devices, maintenance training devices, computer based training, courseware, distance learning, training analyses and research, Contractor operations and maintenance support services, training and instructional services, life cycle support services, distance support/learning, and training management systems, training center operations, database design and support, Human Systems Integration and Total Ship Training development, design and implementation as well as Initial Capabilities Document (ICD), Capability Development Document (CDD), and Architectural Framework development and support . Program management focus includes management of cost, schedule and performance of assigned programs and associated contracts. The Contractor shall support the following Surface programs, as a minimum:

a. Platform/System/Total Ship Training (TST)
    (1) Smart Ship
    (2) LPD17
    (3) Future Carriers (CVN21)
    (4) CVN 68 Class
    (5) DD(X)
    (6) LHAR
    (7) LCS
b. Total Ship Training Capability (TSTC)
c. Human Systems Integration (HSI)
d. Navy Continuous Training Environment (NCTE)
e. Integrated Learning Environment (ILE)
f. Navy Knowledge On-Line (NKO) Afloat
g. Training Figure of Merit (TFOM)
h. Training and Operational Readiness Information Services (TORIS)
i. Network Centric Warfare
j. Architectural Framework
k. Fire Fighting Trainers
l. Augmented Reality Fire Fighting

m. Navigation, Seamanship, and Ship Handling (NSS)
n. Reconfigurable Training Systems
o. Bridge/CIC Trainer
p. LCAC Full Mission Trainer (FMT)
q. Naval Surface Fire Support (NSFS)
    (1) Forward Observer Training System (FOTS)
    (2) Multipurpose Supporting Arms Trainer
r. Battle Force Tactical Trainer Support
    (1) Multi-Mission Team Trainer (MMTT)
    (2) TACDEW (BFTT Shore Segment)
s. Center for Naval Engineering
    (1) HM&E Trainers
    (2) "Common Core" course development
t. ASW Team Trainers
u. Small Arms Marksmanship Trainer (SAMT)
v. Close-In Weapon Systems Trainer
w. Pier Side Combat System Trainer
x. Contractor Operation & Maintenance Of Simulators (COMS)
y. Cog 2 "O" Minor Modification Program
z. Coast Guard Programs
    (1) Buoy Tenders
    (2) Coastal Patrol Boat
    (3) Polar Ice-breaker
    (4) Great Lakes Ice-breaker
    (5) Deepwater Project (future)

3.2.1.5 Program Directorate for Undersea (PDU)

The PDU has responsibility for all undersea programs at NAWCTSD Orlando. The Undersea training program products and services include team training systems, maintenance training devices, operator training systems, computer based training, courseware, training analyses and research, Contractor operations and maintenance support services, training and instructional services, and life cycle support services. Program management focus includes management of cost, schedule, and performance of assigned programs and associated contracts. As a minimum, the Contractor shall support the following Undersea programs for all submarine classes:

a. Ship Control Trainers
b. Navigation Trainers
c. Communications Trainers
d. Weapons Trainers
e. On-Board Trainers
f. Submarine Skills Network

g. Attack Center Trainers
h. Integrated Undersea Surveillance System Trainers (IUSS)
i. Hull, Mechanical, and Electrical Trainers
j. Firefighting Trainers
k. Damage Control Trainers Contractor Operation and Maintenance of Simulators (COMS)

3.2.1.6 Program Directorate for Cross Warfare (PDX)

The PDX manages those projects and programs that are outside of, or span, the traditional warfare areas (Aviation, Surface, and Undersea). It is also the principal office for the management of non-Navy, Joint and non-DOD initiatives, projects and programs as well as the management of emerging technology or methodology initiatives. Typical sponsors include Naval Education and Training Command (NETC), Defense Modeling and Simulation Office, Office of Naval Research, and the various Learning Centers established across the Navy warfare disciplines. Cross Warfare training program products and services include, as a minimum, individual and team training devices, computer based training, courseware content, distance learning, training analyses and research, games for education and training, instructional services, curriculum development/management systems, and database design/support. Program management focus includes management of cost, schedule and performance of assigned programs and associated contracts. Development of acquisition strategies, management of Integrated Program Team (IPT) operations, and customer/sponsor communications are supported. The Contractor shall support the following Cross Warfare programs, as a minimum:

a. Joint Rapid Distributed Database Development Capability (JRD3C)
b. Marine Corps support projects
c. Defense Modeling &Simulation Office/Modeling &Simulation Information Analysis Center (DMSO/MSIAC) support contracting
d. Home Port Training Program
e. Anti-Terrorism/Force Protection training
f. Naval Special Warfare (NAVSPECWAR)
g. Integrated Learning Environment (ILE)
h. Special Operations Support
i. Live Virtual and Constructive Modeling & Simulation (LVCMS) / Antisubmarine Warfare Virtual At Sea Training (ASW VAST)
j. Fleet Synthetic Training support
k. Learning Center analysis support
l. Authoring Instructional Material (AIM)
m. Sea Warrior Program
n. Center for Naval Installations Command (CNIC)
o. Defense Acquisition University (DAU)
p. Department of Homeland Security (DHS)
q. Naval Reserve Officers Training Corps (NROTC)
r. Naval Special Warfare Advanced Training Command (NSWATC)
s. Fleet Readiness Center (FRC)

3.2.1.7 Program Directorate International (PDI)

The PDI manages international training programs, systems and products relating to the Foreign Military Sales (FMS) of aviation, surface, and undersea weapon systems, platforms, and environments. In addition, PDI supports international-related training provided by the Naval Education and Training Command (NETC), its subordinate commands, and the Naval Education and Training Security Assistance Field Activity (NETSAFA). International training program products and services include, as a minimum, individual and team training devices, maintenance training devices, operator training devices, computer based training, courseware, distance learning, training analyses and research, Contractor operations and maintenance support services, training, and instructional services, life cycle support services, distance learning, and training management systems, training center operations, database design and support. Program management focus includes management of cost, schedule, and performance of assigned programs and associated contracts. The Contractor shall support the International program global customer base. The Contractor support for PDI training products will be dependent on the warfare area associated with the requested training product. The Contractor shall provide the support requirements as specified within this SOW for the training products associated warfare area (i.e. if the requested training product is supporting aviation training, the Contractor will provide support in accordance with the Aviation sections called out in this SOW).

3.2.2 Labor Categories

3.2.2.1 Integrated Logistics Support (Acquisition Logistics Management)

The Contractor shall support Integrated Logistics, also known as Acquisition Logistics Management (ALM) efforts. ALM is the management process to facilitate development and integration of the twelve (12) Integrated Product Support (IPS) elements listed below to acquire, field, and support NAWCTSD Orlando and Marine Corps systems. All elements of IPS must be developed in coordination with the system engineering effort and with each other.

a. Maintenance Planning and Management
b. Manpower and Personnel
c. Supply Support
d. Support Equipment
e. Technical Data
f. Training and Training Support
g. Computer Resources
h. Facilities and Infrastructure
i. Packaging, Handling, Storage, and Transportation
j. Design Interface
k. Sustaining Engineering
l. Product Support Management

3.2.2.1.1 Acquisition Logistics Management Support (Acquisition Logistics Manager)

The Contractor shall support Acquisition Logistics Management efforts. The Contractor shall provide logistics inputs to acquisition documents, in process reviews, supportability analyses, review of Government-Furnished Information (GFI) and contract data submittals, Integrated

Logistics Support analyses and studies, functional and physical configuration audits, inventory management, and investigations of support requirements for fleet sites. The Contractor shall provide CSS personnel to support in coordinating activities to ensure all logistic elements are procured and all life-cycle support requirements are considered.

3.2.2.1.1.1 Acquisition Logistics Management Support for 46T

The Contractor shall implement the requirements of paragraph 3.2.2.1.1 for 46T.

3.2.2.1.1.2 Acquisition Logistics Management Support for COPS

The Contractor shall implement the requirements of paragraph 3.2.2.1.1 for COPS.

3.2.2.1.1.3 Acquisition Logistics Management Support for PDA

The Contractor shall implement the requirements of paragraph 3.2.2.1.1 for PDA.

3.2.2.1.1.4 Acquisition Logistics Management Support for PDS

The Contractor shall implement the requirements of paragraph 3.2.2.1.1 for PDS.

3.2.2.1.1.5 Acquisition Logistics Management Support for PDU

The Contractor shall implement the requirements of paragraph 3.2.2.1.1 for PDU.

3.2.2.1.1.6 Acquisition Logistics Management Support for PDX

The Contractor shall implement the requirements of paragraph 3.2.2.1.1 for PDX.

3.2.2.1.1.7 Acquisition Logistics Management Support for PDI

The Contractor shall implement the requirements of paragraph 3.2.2.1.1 for PDI.

3.2.2.1.2 Facilities Engineering Support (Engineer/Scientist III)

The contractor shall provide CSS personnel to support in performing Facilities Engineering tasks. The contractor shall provide CSS personnel to support in performing studies, surveys, reports, analyses, Training Systems Installation Plans (TSIP's), Shipboard/Shore based/Airborne Aviation Requirement (SSAR) inputs, ILA assistance, data gathering, and reviews to ensure that the required facilities are available and in place in a timely fashion to meet training system installation start dates, changing needs resulting from the relocation of training systems, and updating operational conditions where existing training systems are undergoing modifications. The contractor shall furnish Facility Engineering Site Surveys, Trainer Facility Reports (TFRs), Phase I Equipment Facility Requirement (EFR) Plans. The contractor shall develop Rough Order Magnitude Cost Estimates.

3.2.2.1.2.1 Facilities Engineering Support for 46T

The Contractor shall implement the requirements of paragraph 3.2.2.1.2 for 46T.

3.2.2.1.2.2 Facilities Engineering Support for COPS

The Contractor shall implement the requirements of paragraph 3.2.2.1.2 for COPS.

3.2.2.1.2.3 Facilities Engineering Support for PDA

The Contractor shall implement the requirements of paragraph 3.2.2.1.2 for PDA.

3.2.2.1.2.4 Facilities Engineering Support for PDS

The Contractor shall implement the requirements of paragraph 3.2.2.1.2 for PDS.

3.2.2.1.2.5 Facilities Engineering Support for PDU

The Contractor shall implement the requirements of paragraph 3.2.2.1.2 for PDU.

3.2.2.1.2.6 Facilities Engineering Support for PDX

The Contractor shall implement the requirements of paragraph 3.2.2.1.2 for PDX.

3.2.2.1.2.7 Facilities Engineering Support for PDI

The Contractor shall implement the requirements of paragraph 3.2.2.1.2 for PDI.

3.2.2.1.3 Technical Writer III Support

The Contractor shall support technical writer management, and analytical efforts. Navy technical writer includes traditional paper publications and emerging levels of electronic technical writing. In order to accomplish the scope of work, the Contractor shall have the expertise and ability (personnel, equipment, and facilities) to furnish the required support and products. The Contractor shall provide CSS personnel to support in performing the following work:

a. Analyze new and existing program requirements and engineering changes.

b. Estimate support requirements.

c. Coordinate, integrate, and implement acquisition, quality assurance, distribution, and change control tasks.

d. Integrate multi-format technical data.

3.2.2.1.3.1 Technical Writer Support for 46T

The Contractor shall implement the requirements of paragraph 3.2.2.1.3 for 46T.

3.2.2.1.3.2 Technical Writer Support for COPS

The Contractor shall implement the requirements of paragraph 3.2.2.1.3 for COPS.

3.2.2.1.3.3 Technical Writer Support for PDA

The Contractor shall implement the requirements of paragraph 3.2.2.1.3 for PDA.

3.2.2.1.3.4 Technical Writer Support for PDS

The Contractor shall implement the requirements of paragraph 3.2.2.1.3 for PDS.

3.2.2.1.3.5 Technical Writer Support for PDU

The Contractor shall implement the requirements of paragraph 3.2.2.1.3 for PDU.

3.2.2.1.3.6 Technical Writer Support for PDX

The Contractor shall implement the requirements of paragraph 3.2.2.1.3 for PDX.

3.2.2.1.3.7 Technical Writer Support for PDI

The Contractor shall implement the requirements of paragraph 3.2.2.1.3 for PDI.

3.2.2.1.4 Support Equipment Specialist

The Contractor shall provide Support Equipment Specialist services. The Contractor shall provide CSS personnel to support in performing Support Equipment tasks. The Contractor shall provide CSS personnel to support in performing the following work:

a. Provisioning for initial support, as well as acquiring, distributing, and replenishing inventories as reflected in the supply chain management strategy.

b. Review and/or develop Initial Support Kit Lists, Engineering Data for Provisioning, Special Tools and Test Equipment Lists, Bills of Material, Diminishing Manufacturing Sources and Material Shortage Reports and Plans, and Legacy System Obsolescence Analyses.

3.2.2.1.4.1 Support Equipment Specialist for 46T

The Contractor shall implement the requirements of paragraph 3.2.2.1.4 for 46T.

3.2.2.1.4.2 Support Equipment Specialist for COPS

The Contractor shall implement the requirements of paragraph 3.2.2.1.4 for COPS.

3.2.2.1.4.3 Support Equipment Specialist for PDA

The Contractor shall implement the requirements of paragraph 3.2.2.1.4 for PDA.

3.2.2.1.4.4 Support Equipment Specialist for PDS

The Contractor shall implement the requirements of paragraph 3.2.2.1.4 for PDS.

3.2.2.1.4.5 Support Equipment Specialist for PDU

The Contractor shall implement the requirements of paragraph 3.2.2.1.4 for PDU.

3.2.2.1.4.6 Support Equipment Specialist for PDX

The Contractor shall implement the requirements of paragraph 3.2.2.1.4 for PDX.

3.2.2.1.4.7 Support Equipment Specialist for PDI

The Contractor shall implement the requirements of paragraph 3.2.2.1.4 for PDI.

3.2.2.2 Program Management and Assistant Program Management Support (Project Support Specialist)

The Contractor shall support Program Management and Assistant Program Management (Project Support Specialist) work. The Contractor shall provide CSS personnel to support in performing

project task definition and workload planning, acquisition management, funds management, and financial cost accounting. In addition, the Contractor shall:

a. Provide CSS personnel to support budgeting; project planning; program planning; and maintaining program information in the business enterprise tools. The business enterprise tools include: SAP/Navy ERP, Work in Progress Database, Program Management Tool, Command Staffing work-year database, and Workload Assignment Agreements.

b. Provide CSS personnel to support project leads in the performance of program tasks; respond to administrative and programmatic data calls; and provide administrative planning related to program events and day-to-day operations of assigned projects.

c. Provide CSS personnel to support in administrative planning, record keeping, data entry, communications, inventory control, and program administration related to day-to-day operations and activities of assigned projects.

3.2.2.2.1 Program Management and Assistant Program Management Support for 46T
The Contractor shall implement the requirements of paragraph 3.2.2.2 for 46T.

3.2.2.2.2 Program Management and Assistant Program Management Support for COPS
The Contractor shall implement the requirements of paragraph 3.2.2.2 for COPS.

3.2.2.2.3 Program Management and Assistant Program Management Support for PDA
The Contractor shall implement the requirements of paragraph 3.2.2.2 for PDA.

3.2.2.2.4 Program Management and Assistant Program Management Support for PDS
The Contractor shall implement the requirements of paragraph 3.2.2.2 for PDS.

3.2.2.2.5 Program Management and Assistant Program Management Support for PDU
The Contractor shall implement the requirements of paragraph 3.2.2.2 for PDU.

3.2.2.2.6 Program Management and Assistant Program Management Support for PDX
The Contractor shall implement the requirements of paragraph 3.2.2.2 for PDX.

3.2.2.2.7 Program Management and Assistant Program Management Support for PDI
The Contractor shall implement the requirements of paragraph 3.2.2.2 for PDI.

3.2.2.3 Engineering and Instructional Systems Support
The Contractor shall support engineering and instructional systems efforts. The Contractor shall participate in IPTs, Program Design Reviews (PDRs), and Critical Design Reviews (CDRs) to ensure systems under development are developed efficiently, accurately and on time. The Contractor shall perform continuous liaison and coordination with Fleet Project Teams (FPTs) to assure that delivered training system/devices are satisfactory and acceptable to the Type Commander. The Contractor shall provide CSS personnel to support in preparing project status reports, design documentation, engineering reports and studies, engineering specifications, and other technical documentation.

3.2.2.3.1 Systems Engineer and Senior Systems Engineer Support

The Contractor shall support systems engineering efforts. The Contractor shall provide CSS personnel to support in performing the following work:

a. Analyze technical documentation and prepare technical design approaches for training system(s). The technical design approach shall provide alternative design approaches that will include tradeoff analyses and identify technical risks.

b. Develop cost and lead-time estimates for the training system to be developed.

c. Apply decision analysis techniques to ensure that the engineering approach is cost effective and satisfies the training objectives. Upon determination of the proper engineering approach, prepare a technical description that includes a block diagram and math models. Determine the degree of fidelity of the simulation necessary to maximize the transfer of training.

d. Develop quantitative criteria and recommend tradeoffs regarding inputs received from supporting personnel concerning training system change(s). Provide Contractor support to planners for budgeting and planning purposes.

e. Develop engineering specifications detailing design, performance, testing, and provisions for the acceptance of the engineering changes.

f. Evaluate technical proposals and work statements submitted by commercial Contractors or in-house resources. Recommend the best technical approach submitted in response to the specification. Clarify engineering design ambiguities, highlighting areas of design deficiency, and resolving conflicts in the proposed engineering technical approach. Document the configuration, design, and performance characteristics of the proposed training system.

g. Conduct market research.

h. Develop engineering Specifications and other documents IAW NAWCTSD Orlando's policies and procedures on Technical Procurement Package Preparation and Processing.

i. Review training system Contractor's design approach, criteria, and design reports. Evaluate the design approach, criteria and reports, and provide evaluation comments.

j. Continuously assess training system Contractor performance and recommend appropriate action when Contractor delinquencies of deficiencies occur.

k. Recommend changes to the training systems contract based on revisions to military training characteristics, changes to performance characteristics, or for pre-planned product improvements.

l. Monitor the configuration management of the training system.

m. Monitor and assess training system hardware and software development status and provide CSS in resolving related programmatic issues.

n. Identify problems being encountered in hardware and software development and provide recommendations as to how to resolve these problems.

o. Review the training system Contractor's proposed test criteria and test procedures, and subsequently perform examinations and acceptance tests.

p. Analyze potential requirements for modifications on training systems in the operational phase of the training system life cycle. This involves extensive research and coordination, including direct contact with fleet activities, Government laboratories, and device/system users.

q. When required, propose technical solutions related to a project during training systems Contractor or in-house resource performance. Review waivers and deviations in material, processes, and selection, performance characteristics and testing parameter variances.

Participate in design review conferences and address and evaluate trade-offs concerning maintainability and reliability.

3.2.2.3.1.1 Systems Engineering and Senior Systems Engineering Support for 46T

The Contractor shall implement the requirements of paragraph 3.2.2.3.1 for 46T.

3.2.2.3.1.2 Systems Engineer and Senior Systems Engineer Support for COPS

The Contractor shall implement the requirements of paragraph 3.2.2.3.1 for COPS.

3.2.2.3.1.3 Systems Engineer and Senior Systems Engineer Support for PDA

The Contractor shall implement the requirements of paragraph 3.2.2.3.1 for PDA.

3.2.2.3.1.4 Systems Engineer and Senior Systems Engineer Support for PDS

The Contractor shall implement the requirements of paragraph 3.2.2.3.1 for PDS.

3.2.2.3.1.5 Systems Engineer and Senior Systems Engineer Support for PDU

The Contractor shall implement the requirements of paragraph 3.2.2.3.1 for PDU.

3.2.2.3.1.6 Systems Engineer and Senior Systems Engineer Support for PDX

The Contractor shall implement the requirements of paragraph 3.2.2.3.1 for PDX.

3.2.2.3.1.7 Systems Engineer and Senior Systems Engineer Support for PDI

The Contractor shall implement the requirements of paragraph 3.2.2.3.1 for PDI.

3.2.2.3.2 Senior Software Engineer and Software Engineer Support (Engineer/Scientist IV)

The Contractor shall support software engineering acquisition efforts. The Contractor shall provide CSS personnel to support in performing the following work:

a. Determine the degree of fidelity for the simulation necessary to maximize the transfer of training.

b. Develop engineering Specifications and other documents required by NAWCTSD Orlando's policies and procedures on Technical Procurement Package Preparation and Processing.

c. Evaluate technical proposals and work statements submitted by contractors or in-house resources. Recommend and justify the best technical approach among offerors that have submitted proposals in response to the Request for Propsoal (RFP) or requirements.

d. Provide Contractor support to planners for budgeting and planning purposes.

e. Clarify software design ambiguities, highlighting areas of software design deficiency, and provide support in resolving conflicts in the proposed engineering technical approach. Document the configuration, design, and performance characteristics of the proposed training system software.

f. Evaluate offerors' technical proposals IAW the approved proposal evaluation plan.

g. Review Contractor's data deliverable (items) and internal software life cycle work products (e.g. System Engineering Plan, Software Development Plan, System and Software Requirements Specs, System and Software Design Descriptions, Software Test Plans/Procedures, and other Technical Reports).

h. Recommend appropriate action when Contractor delinquencies or deficiencies occur during the trainer system software life cycle.

i. Recommend changes to the training systems contract based on revisions to military training characteristics, changes to performance characteristics, or for pre-planned product improvements.

j. Become familiar with the training system Contractor's software life-cycle activities and work products, in order to effectively monitor and assess the software development effort. Provide CSS in resolving related programmatic issues.

k. Participate in appropriate IPT meetings, working groups, design/progress reviews, audits (e.g. Post Award Conferences, Requirements Review, Design Reviews, and Test Readiness Review).

l. Monitor and evaluate software metrics data for trends, deviations, and compliance.

m. Monitor the requirements analysis, definition and allocation process and work products generated during the training system life cycle.

n. Monitor the software preliminary and detailed design process and related work products generated during the training system life cycle.

o. Monitor the software code and unit test process and work products generated during the training system life cycle. Review the Contractor's proposed training system test criteria and subsequently perform examinations and audit test results.

p. Monitor the hardware and software integration process and work products generated during the training system life cycle.

q. Monitor and participate in the Software Physical Configuration Audit.

r. Monitor and participate in the training system acceptance testing process. Perform and document software cold starts and other software related system testing.

s. Monitor the software configuration management process applied and work products generated during training system life cycle.

t. Monitor the software quality assurance process applied, and work products generated during the training system life cycle.

u. Identify problems being encountered in hardware and software development and provide recommendations for resolving these problems.

v. Analyze potential software requirements for modifications on training systems in the operational phase of the training system life cycle. This analysis shall involve extensive research and coordination, including direct contact with fleet activities, government laboratories, and device/system users.

3.2.2.3.2.1 Senior Software Engineer and Software Engineer Support Support for 46T

The Contractor shall implement the requirements of paragraph 3.2.2.3.2 for 46T.

3.2.2.3.2.2 Senior Software Engineer and Software Engineer Support Support for COPS

The Contractor shall implement the requirements of paragraph 3.2.2.3.2 for COPS.

3.2.2.3.2.3 Senior Software Engineer and Software Engineer Support Support for PDA
The Contractor shall implement the requirements of paragraph 3.2.2.3.2 for PDA.

3.2.2.3.2.4 Senior Software Engineer and Software Engineer Support Support for PDS
The Contractor shall implement the requirements of paragraph 3.2.2.3.2 for PDS.

3.2.2.3.2.5 Senior Software Engineer and Software Engineer Support Support for PDU
The Contractor shall implement the requirements of paragraph 3.2.2.3.2 for PDU.

3.2.2.3.2.6 Senior Software Engineer and Software Engineer Support Support for PDX
The Contractor shall implement the requirements of paragraph 3.2.2.3.2 for PDX.

3.2.2.3.2.7 Senior Software Engineer and Software Engineer Support Support for PDI
The Contractor shall implement the requirements of paragraph 3.2.2.3.2 for PDI.

3.2.2.3.3 Senior Computer Programmer (IV) and Computer Programmer (II) Support
The Contractor shall support computer programmer (software development) efforts. The Contractor shall design, develop, implement, and document Modeling and Simulation (M&S) systems, software, research efforts, and related processes including system interoperability. The Contractor shall identify research requirements and methods to improve current systems and processes. The Contractor shall provide CSS personnel to support in performing the following work:

a. Develop software using high order languages that is efficient, readable, and well documented.

b. Prepare reports describing status of software under development.

c. Monitor the progress of training system Contractors during computer systems, software and/or equipment development and procurement. Test and install the procured item(s) upon receipt for compliance with procurement and design requirements.

d. Solve problems that arise during the development or modification of simulation related real-time computational systems.

e. Analyze requirements and prepare a software design approach for proposed training system(s). Provide alternative design approaches with tradeoff analyses and risk assessments.

f. Develop cost and lead-time estimates for the software to be developed.

g. Prepare budgets and plans for purchase and maintenance of software to be developed.

h. Conduct analyses to ensure that software designs are cost effective and satisfy requirements.

i. Develop engineering specifications detailing design, expected performance, testing, and provisions for software acceptance.

j. Review training system Contractor's design approach, criteria, and design reports.

k. Review software design and conduct code reviews.

l. Monitor and adhere to the software configuration management practices.

m. Become familiar with external Contractor's procedures and controls for software development in order to effectively monitor and assess the software development effort.

n. Identify problems encountered in software development and provide recommendations that resolve these problems.

o. Develop test plans and when needed, provide CSS in performing examinations and acceptance tests.

p. Actively maintain and enhance job related knowledge and skills in M&S, software development techniques, state-of-the-art computer architectures, emerging technologies, and other software development areas.

q. Apply decision analysis techniques to ensure that the engineering approach is cost effective and satisfies the training objectives.

r. Monitor and assess software development status and provide CSS personnel to provide support in resolving related programmatic issues.

3.2.2.3.3.1 Senior Computer Programmer and Computer Programmer Support for 46T

The Contractor shall implement the requirements of paragraph 3.2.2.3.3 for 46T.

3.2.2.3.3.2 Senior Computer Programmer and Computer Programmer Support for COPS

The Contractor shall implement the requirements of paragraph 3.2.2.3.3 for COPS.

3.2.2.3.3.3 Senior Computer Programmer and Computer Programmer Support for PDA

The Contractor shall implement the requirements of paragraph 3.2.2.3.3 for PDA.

3.2.2.3.3.4 Senior Computer Programmer and Computer Programmer Support for PDS

The Contractor shall implement the requirements of paragraph 3.2.2.3.3 for PDS.

3.2.2.3.3.5 Senior Computer Programmer and Computer Programmer Support for PDU

The Contractor shall implement the requirements of paragraph 3.2.2.3.3 for PDU.

3.2.2.3.3.6 Senior Computer Programmer and Computer Programmer Support for PDX

The Contractor shall implement the requirements of paragraph 3.2.2.3.3 for PDX.

3.2.2.3.3.7 Senior Computer Programmer and Computer Programmer Support for PDI

The Contractor shall implement the requirements of paragraph 3.2.2.3.3 for PDI.

3.2.2.3.4 Configuration Management Analyst Support

The Contractor shall provide CSS personnel support in performing the following work:

a. Develop and maintain Configuration Management (CM) Plans.
b. Enforce and adhere to processes as described in the CM Plan.
c. Track and report on all Discrepancy Reports (DRs) / Change Requests (CRs) within NAWCTSD's issue tracking system.
d. Plan and manage activities related to CM.
e. Serve as the point of contact for CM requirements within NAWCTSD's labs.
f. Establish and control the CM Audits, CM Library, Configuration Items (CIs), and baselines.

g. Review the configuration status accounting information for assigned projects.
h. Present the configuration status accounting information to all IPT members, as needed.
i. Train IPT members in their roles and on the functionality with the use of commercial CM tools.
j. Act as Configuration Control Board (CCB) Secretariat.
k. Gather, analyze, and report CM metrics.
l. Assist in the conduct of Physical Configuration Audits (PCAs) and Functional Configuration Audits (FCAs).
m. Coordinate the assessment of all DRs / CRs before scheduling the CCB.
n. Maintain the CM Library, equipment inventory, and deliverable configuration items (CIs).
o. Create and distribute copies of CIs from established baselines, as needed.
p. Check in COTS/GOTS CIs into the CM Tool for redistribution.
q. Establish baselines in CM tools.
r. Verify changes made to CIs maintained in the Configuration Management System (CMS).
s. Create scripts, queries, and reports in CM tools to assist with enforcing CM policies and standards.
t. Perform internal audits of CM baselines, standards, and the CM tracking tools.
u. Maintain configuration management of test cases and test documentation.
v. Support the Contractors' or in-house software development team by maintaining and auditing build and run procedures (contained in the Software Product Specification (SPS)).

3.2.2.3.4.1 Configuration Management Analyst Support for 46T

The Contractor shall implement the requirements of paragraph 3.2.2.3.4 for 46T.

3.2.2.3.4.2 Configuration Management Analyst Support for COPS

The Contractor shall implement the requirements of paragraph 3.2.2.3.4 for COPS.

3.2.2.3.4.3 Configuration Management Analyst Support for PDA

The Contractor shall implement the requirements of paragraph 3.2.2.3.4 for PDA.

3.2.2.3.4.4 Configuration Management Analyst Support for PDS

The Contractor shall implement the requirements of paragraph 3.2.2.3.4 for PDS.

3.2.2.3.4.5 Configuration Management Analyst Support for PDU

The Contractor shall implement the requirements of paragraph 3.2.2.3.4 for PDU.

3.2.2.3.4.6 Configuration Management Analyst Support for PDX

The Contractor shall implement the requirements of paragraph 3.2.2.3.4 for PDX.

3.2.2.3.4.7 Configuration Management Analyst Support for PDI

The Contractor shall implement the requirements of paragraph 3.2.2.3.4 for PDI.

3.2.2.3.5 Network and Computer Systems

The Contractor shall support network and computer systems efforts. The Contractor shall provide administration, engineering and general support for network and computer systems. The Contractor shall collect, organize, and analyze network and computer systems data, and shall generate reports. The Contractor shall implement the network and computer systems Information Assurance Vulnerability Management (IAVM) program. The Contractor shall perform Information Assurance (IA) tasks required for maintaining the network and computer systems Information Assurance accreditation in accordance with DODD 8500.01E , DODI 8500.2 and DODI 8510.01.

3.2.2.3.5.1 Network and Computer System Administration Support for Level I Computing Environments (System Administrator, Junior)

Level I Computing Environments (CE) are defined in DOD 8570.01-M. The Contractor shall provide Level I Computing Environments certified personnel (Systems Administrator, Junior) for performing CSS. The Contractor shall provide CSS personnel to support network and computer system administration efforts as follows:

a. Be responsible for the operation and maintenance of networks, servers, and client workstations.

b. Install configure, maintain, and administer networks, network devices, client machines, and servers.

c. Implement and support application packages.

d. Procure and repair components necessary to maintain network and information technology systems.

e. Conduct systems analysis and summarize the data collected in a technical document that is understood and usable by the decision makers.

f. Maintain system backups.

g. Recognize/Examine a potential security violation IAW SECNAVINST 5239.19, take appropriate action to report the incident as required by regulation, and mitigate any adverse impact and preserve evidence.

h. Apply instructions and pre-established guidelines IAW DODD 8500.01E and DODI 8510.01 to perform IA tasks within the computing environment (CE).

i. Provide end user IA support for computer environment systems, peripherals, and applications.

j. Support, monitor, test, and troubleshoot hardware and software IA problems pertaining to their CE.

k. Apply CE specific IA program requirements to identify areas of weakness.

l. Apply appropriate CE access controls.

m. Install and operate the network and computer systems in a test configuration manner that does not alter the program code or compromise security safeguards.

n. Conduct tests of IA safeguards for CE system in accordance with implementation plans and SOPs.

o. Apply established IA security procedures and safeguards and comply with assigned responsibilities IAW DODI 8570.01.

p. Develop and implement access control lists on switches and other network devices.

q. Comply with system termination procedures and incident reporting requirements related to potential CE security incidents or actual breaches.

r. Implement applicable patches including Information Assurance Vulnerability Alerts (IAVAs), Information Assurance Vulnerability Bulletins (IAVBs) and Information Assurance Technical Alerts (IATAs) for CE COTS, and comply with reporting requirements.

s. Understand and implement technical vulnerability corrections (i.e. workarounds, mitigations and/or remediation).

t. Coordinate Certification and Accreditation activities with Information Assurance Officer (IAO)/Manager (IAM) for IT system under responsibility, and assist in the creation and maintenance of accreditation packages in the DON's enterprise Mission Assurance Support Service (eMASS).

u. Perform penetration tests and vulnerability assessments using EyeRetina vulnerability scanner, Defense Information Systems Agency (DISA) Gold Disk, Security Readiness Review (SRR) scripts and the Security Content Automation Protocol (SCAP) Compliance Checker.

v. Perform Pre-Validation and Pre-Verification Tests (Part of Certification and Accreditation (C&A) Process).

w. Ensure compliance with Department of the Navy Application & Database Management System (DADMS) validation requirements for commercial of the shelf (COTS) and Government off the shelf (GOTS) software products used in the CE. Request a Government-sponsored DADMS access account.

3.2.2.3.5.1.1 Network and Computer System Administration Support for Level I Computing Environments (System Administrator, Junior) for 46T

The Contractor shall implement the requirements of paragraph 3.2.2.3.5.1 for 46T.

3.2.2.3.5.1.2 Network and Computer System Administration Support for Level I Computing Environments (System Administrator, Junior) for COPS

The Contractor shall implement the requirements of paragraph 3.2.2.3.5.1 for COPS.

3.2.2.3.5.1.3 Network and Computer System Administration Support for Level I Computing Environments (System Administrator, Junior) for PDA

The Contractor shall implement the requirements of paragraph 3.2.2.3.5.1 for PDA.

3.2.2.3.5.1.4 Network and Computer System Administration Support for Level I Computing Environments (System Administrator, Junior) for PDS

The Contractor shall implement the requirements of paragraph 3.2.2.3.5.1 for PDS.

3.2.2.3.5.1.5 Network and Computer System Administration Support for Level I Computing Environments (System Administrator, Junior) for PDU

The Contractor shall implement the requirements of paragraph 3.2.2.3.5.1 for PDU.

3.2.2.3.5.1.6 Network and Computer System Administration Support for Level I Computing Environments (System Administrator, Junior) for PDX

The Contractor shall implement the requirements of paragraph 3.2.2.3.5.1 for PDX.

3.2.2.3.5.1.7 Network and Computer System Administration Support for Level I Computing Environments (System Administrator, Junior) for PDI

The Contractor shall implement the requirements of paragraph 3.2.2.3.5.1 for PDI.

3.2.2.3.5.2 Network and Computer System Administration Support for Level II Network Environments (System Administrator, Senior)

Level II Network Environments (NE) are defined in DOD 8570.01-M. The Contractor shall provide Level II Network Environments certified personnel (System Administrator, Senior) for performing CSS. The Contractor shall provide CSS personnel to support network and computer system administration efforts as follows:

a. Demonstrate expertise in IAT Level I CE knowledge and skills.

b. Perform the operation and maintenance of networks, servers, and client workstations.

c. Install configure, maintain, and administer networks, network devices, client machines, and servers.

d. Implement and support application packages.

e. Procure and repair components necessary to maintain network and information technology systems.

f. Conduct systems analysis and summarize the data collected in a technical document that is understood and usable by the decision makers.

g. Maintain system backups.

h. Recommend and schedule IA related repairs in the NE.

i. Perform IA related customer support functions including installation, configuration, troubleshooting, customer assistance, and/or training, in response to customer requirements for the NE.

j. Analyze patterns of noncompliance and take appropriate administrative or programmatic actions to minimize security risks and insider threats.

k. Manage accounts, network rights, and access to NE systems and equipment.

l. Analyze system performance for potential security problems.

m. Assess the performance of IA security controls within the NE.

n. Identify IA vulnerabilities resulting from a departure from the implementation plan or that were not apparent during testing.

o. Configure, optimize, and test network servers, hubs, routers, and switches to ensure they comply with security policy, procedures, and technical requirements.

p. Install, test, maintain, and upgrade network operating systems software and hardware to comply with IA requirements.

q. Evaluate potential IA security risks and take appropriate corrective and recovery action.

r. Ensure that hardware, software, data, and facility resources are archived, sanitized, or disposed of in a manner consistent with system security plans and requirements.

s. Diagnose and resolve IA problems in response to customer reported incidents.

t. Research, evaluate, and provide feedback on problematic IA trends and patterns in customer support requirements.

u. Perform system audits to assess security related factors within the NE.

v. Develop and implement access control lists on routers, firewalls, and other network devices.

w. Install perimeter defense systems including intrusion detection systems, firewalls, grid sensors, etc., and enhance rule sets to block sources of malicious traffic.

x. Work with other privileged users to jointly solve IA problems.

y. Apply security requirements to an operating system for the NE or CE used in their current position.

z. Adhere to IS security laws and regulations to support functional operations for the NE.

aa. Implement response actions in reaction to security incidents.

3.2.2.3.5.2.1 Network and Computer System Administration Support for Level II Network Environments (System Administrator, Senior) for 46T

The Contractor shall implement the requirements of paragraph 3.2.2.3.5.2 for 46T.

3.2.2.3.5.2.2 Network and Computer System Administration Support for Level II Network Environments (System Administrator, Senior) for COPS

The Contractor shall implement the requirements of paragraph 3.2.2.3.5.2 for COPS.

3.2.2.3.5.2.3 Network and Computer System Administration Support for Level II Network Environments (System Administrator, Senior) for PDA

The Contractor shall implement the requirements of paragraph 3.2.2.3.5.2 for PDA.

3.2.2.3.5.2.4 Network and Computer System Administration Support for Level II Network Environments (System Administrator, Senior) for PDS

The Contractor shall implement the requirements of paragraph 3.2.2.3.5.2 for PDS.

3.2.2.3.5.2.5 Network and Computer System Administration (System Administrator, Senior) Support for Level II Network Environments) for Level II Network Environments for PDU

The Contractor shall implement the requirements of paragraph 3.2.2.3.5.2 for PDU.

3.2.2.3.5.2.6 Network and Computer System Administration Support for Level II Network Environments (System Administrator, Senior) for PDX

The Contractor shall implement the requirements of paragraph 3.2.2.3.5.2 for PDX.

3.2.2.3.5.2.7 Network and Computer System Administration Support for Level II Network Environments (System Administrator, Senior) for PDI

The Contractor shall implement the requirements of paragraph 3.2.2.3.5.2 for PDI.

3.2.2.3.5.3 Network and Computer Systems Engineer Level I Computing Environments (Network Engineer)

Level I Computing Environments are defined in DOD 8570.01-M. The Contractor shall provide Level I Computing Environment certified personnel for performing CSS. The Contractor shall support network and computer systems engineering efforts as follows. In addition to operation and maintenance of networks, servers, and client workstations, the Contractor shall provide CSS personnel to support in performing the following work:

a. Design of systems architectures.

b. Design and document network architectures comprised of network topologies, network devices, client machines, and servers.

c. Investigate, recommend, implement, and support application packages.

d. Recommend procurement and repair of components necessary to maintain the network and information technology systems.

e. Conduct systems analysis and produce specific charts, graphs, databases, or other documentation that summarize the data collected in a manner that is understood and usable by the decision makers.

f. Recognize/Examine a potential security violation IAW SECNAVINST 5239.19, take appropriate action to report the incident as required by regulation, and mitigate any adverse impact and preserve evidence.

g. Apply instructions and pre-established guidelines IAW DODD 8500.01E and DODI 8510.01 to perform IA tasks within the computing environment (CE).

h. Provide end user IA support for computer environment systems, peripherals, and applications.

i. Support, monitor, test, and troubleshoot hardware and software IA problems pertaining to their CE.

j. Apply CE specific IA program requirements to identify areas of weakness.

k. Apply appropriate CE access controls.

l. Install and operate the network and computer systems in a test configuration manner that does not alter the program code or compromise security safeguards.

m. Conduct tests of IA safeguards for CE system in accordance with implementation plans and SOPs.

n. Apply established IA security procedures and safeguards and comply with assigned responsibilities IAW DODI 8570.01.

o. Develop and implement access control lists on switches and other network devices.

p. Comply with system termination procedures and incident reporting requirements related to potential CE security incidents or actual breaches.

q. Implement applicable patches including IAVAs, IAVBs and IATAs for CE COTS, and comply with reporting requirements.

r. Understand and implement technical vulnerability corrections (i.e. workarounds, mitigations and/or remediation)

s. Coordinate Certification and Accreditation activities with Information Assurance Officer/Manager for IT system under responsibility, and assist in the creation and maintenance of accreditation packages in the DON's enterprise Mission Assurance Support Service (eMASS).

t. Perform Pre-Validation and Pre-Verification Tests (Part of Certification and Accreditation Process).

3.2.2.3.5.3.1 Network and Computer Systems Engineer Level I Computing Environments (Network Engineer) for 46T

The Contractor shall implement the requirements of paragraph 3.2.2.3.5.3 for 46T.

3.2.2.3.5.3.2 Network and Computer Systems Engineer Level I Computing Environments (Network Engineer) for COPS

The Contractor shall implement the requirements of paragraph 3.2.2.3.5.3 for COPS.

3.2.2.3.5.3.3 Network and Computer Systems Engineer Level I Computing Environments (Network Engineer) for PDA

The Contractor shall implement the requirements of paragraph 3.2.2.3.5.3 for PDA.

3.2.2.3.5.3.4 Network and Computer Systems Engineer Level I Computing Environments (Network Engineer) for PDS

The Contractor shall implement the requirements of paragraph 3.2.2.3.5.3 for PDS.

3.2.2.3.5.3.5 Network and Computer Systems Engineer Level I Computing Environments (Network Engineer) for PDU

The Contractor shall implement the requirements of paragraph 3.2.2.3.5.3 for PDU.

3.2.2.3.5.3.6 Network and Computer Systems Engineer Level I Computing Environments (Network Engineer) for PDX

The Contractor shall implement the requirements of paragraph 3.2.2.3.5.3 for PDX.

3.2.2.3.5.3.7 Network and Computer Systems Engineer Level I Computing Environments (Network Engineer) for PDI

The Contractor shall implement the requirements of paragraph 3.2.2.3.5.3 for PDI.

3.2.2.3.5.4 Network and Computer Systems Engineering Support for Level II Network Environments (Network Engineer, Senior)

Level II Network Environments are defined in DOD 8570.01-M. The Contractor shall provide appropriately Level II Network Environment certified personnel for CSS. The Contractor shall support network and computer systems engineering efforts as follows. In addition to Network and Computer Systems Engineering Support for Level I Computing Environments, the Contractor shall provide CSS personnel to support in performing the following work:

a. Design of systems architectures.

b. Design and document network architectures comprised of network topologies, network devices, client machines, and servers.

c. Investigate, recommend, implement, and support application packages.

d. Recommend procurement and repair of components necessary to maintain the network and information technology systems.

e. Conduct systems analysis and produce specific charts, graphs, databases, or other documentation that summarize the data collected in a manner that is understood and usable by the decision makers

f. Recommend and schedule IA related repairs in the NE.

g. Perform IA related customer support functions including installation, configuration, troubleshooting, customer assistance, and/or training, in response to customer requirements for the NE.

h. Analyze patterns of noncompliance and take appropriate administrative or programmatic actions to minimize security risks and insider threats.

i. Manage accounts, network rights, and access to NE systems and equipment.

j. Analyze system performance for potential security problems.

k. Assess the performance of IA security controls within the NE.

l. Identify IA vulnerabilities resulting from a departure from the implementation plan or that were not apparent during testing.

m. Configure, optimize, and test network servers, hubs, routers, and switches to ensure they comply with security policy, procedures, and technical requirements.

n. Install, test, maintain, and upgrade network operating systems software and hardware to comply with IA requirements.

o. Evaluate potential IA security risks and take appropriate corrective and recovery action.

p. Ensure that hardware, software, data, and facility resources are archived, sanitized, or disposed of in a manner consistent with system security plans and requirements.

q. Diagnose and resolve IA problems in response to customer reported incidents.

r. Research, evaluate, and provide feedback on problematic IA trends and patterns in customer support requirements.

s. Perform system audits to assess security related factors within the NE.

t. Develop and implement access control lists on routers, firewalls, and other network devices.

u. Install perimeter defense systems including intrusion detection systems, firewalls, grid sensors, etc., and enhance rule sets to block sources of malicious traffic.

v. Work with other privileged users to jointly solve IA problems.

w. Demonstrate proficiency in applying security requirements to an operating system for the NE or CE used in their current position.

x. Adhere to IS security laws and regulations to support functional operations for the NE.

y. Implement response actions in reaction to security incidents.

3.2.2.3.5.4.1 Network and Computer Systems Engineering Support for Level II Network Environments (Network Engineer, Senior) for 46T

The Contractor shall implement the requirements of paragraph 3.2.2.3.5.4 for 46T.

3.2.2.3.5.4.2 Network and Computer Systems Engineering Support for Level II Network Environments (Network Engineer, Senior) for COPS

The Contractor shall implement the requirements of paragraph 3.2.2.3.5.4 for COPS.

3.2.2.3.5.4.3 Network and Computer Systems Engineering Support for Level II Network Environments (Network Engineer, Senior) for PDA

The Contractor shall implement the requirements of paragraph 3.2.2.3.5.4 for PDA.

3.2.2.3.5.4.4 Network and Computer Systems Engineering Support for Level II Network Environments (Network Engineer, Senior) for PDS

The Contractor shall implement the requirements of paragraph 3.2.2.3.5.4 for PDS.

3.2.2.3.5.4.5 Network and Computer Systems Engineering Support for Level II Network Environments (Network Engineer, Senior) for PDU

The Contractor shall implement the requirements of paragraph 3.2.2.3.5.4 for PDU.

3.2.2.3.5.4.6 Network and Computer Systems Engineering Support for Level II Network Environments (Network Engineer, Senior) for PDX

The Contractor shall implement the requirements of paragraph 3.2.2.3.5.4 for PDX.

3.2.2.3.5.4.7 Network and Computer Systems Engineering Support for Level II Network Environments (Network Engineer, Senior) for PDI

The Contractor shall implement the requirements of paragraph 3.2.2.3.5.4 for PDI.

3.2.2.3.5.5 Engineering Technician I for NAWCTSD Orlando Research and Development (R&D) Laboratories

The Contractor shall support general computer efforts for NAWCTSD Orlando Research and Development (R&D) laboratories. The CSS personnel (Engineering Technician) provided will not have system administrator privileges or root access to computer systems. For these laboratories, the Contractor shall provide CSS personnel to support in performing the following work:

a. Operate and maintain computer and network hardware and software.
b. Install and configure computer hardware and software.
c. Conduct research to gain knowledge needed to acquire hardware and software.
d. Procure components and provide repairs as necessary to maintain network and computer systems.

3.2.2.3.5.5.1 Engineering Technician I Support for NAWCTSD Orlando Research and Development (R&D) Laboratories for 46T

The Contractor shall implement the requirements of paragraph 3.2.2.3.5.5 for 46T.

3.2.2.3.5.5.2 Engineering Technician I Support for NAWCTSD Orlando Research and Development (R&D) Laboratories for COPS

The Contractor shall implement the requirements of paragraph 3.2.2.3.5.5 for COPS.

3.2.2.3.5.5.3 Engineering Technician I Support for NAWCTSD Orlando Research and Development (R&D) Laboratories for PDA

The Contractor shall implement the requirements of paragraph 3.2.2.3.5.5 for PDA.

3.2.2.3.5.5.4 Engineering Technician I Support for NAWCTSD Orlando Research and Development (R&D) Laboratories for PDS

The Contractor shall implement the requirements of paragraph 3.2.2.3.5.5 for PDS.

3.2.2.3.5.5.5 Engineering Technician I Support for NAWCTSD Orlando Research and Development (R&D) Laboratories for PDU

The Contractor shall implement the requirements of paragraph 3.2.2.3.5.5 for PDU.

3.2.2.3.5.5.6 Engineering Technician I Support for NAWCTSD Orlando Research and Development (R&D) Laboratories for PDX

The Contractor shall implement the requirements of paragraph 3.2.2.3.5.5 for PDX.

3.2.2.3.5.5.7 Engineering Technician I Support for NAWCTSD Orlando Research and Development (R&D) Laboratories for PDI

The Contractor shall implement the requirements of paragraph 3.2.2.3.5.5 for PDI.

3.2.2.3.5.6 Modeling and Simulation (M&S) (Operations Research Analyst) Support

The Contractor shall support M&S efforts. M&S support includes design, development, analysis, test and evaluation of visual systems, flight simulations, emissions, acoustics, tactical datalink, and synthetic natural environments for flight simulation. The Contractor shall provide CSS personnel to support in performing the following work:

a. Develop models to be used in simulations, produce cost and lead-time estimates for simulations to be developed, provide support for budgeting and planning for simulation software purchases, and conduct analyses to ensure that simulation designs are cost effective and satisfy requirements.

b. Analyze requirements and design simulations for proposed training systems and provide design alternatives with tradeoff analyses and risk assessments. Develop specifications detailing design and expected performance.

c. Prepare status reports describing simulations under development.

d. Provide professional engineering skills and knowledge in solving problems that arise during the development or modification of simulations systems.

e. Review simulation designs and conduct reviews.

f. Monitor and assess simulation development and collaborate in resolving issues. Identify problems found during development and provide recommendations.

g. Prepare test plans and conduct tests for the acceptance of developed simulations.

3.2.2.3.5.6.1 Modeling and Simulation (Operations Research Analyst) Support for 46T

The Contractor shall implement the requirements of paragraph 3.2.2.3.5.6 for 46T.

3.2.2.3.5.6.2 Modeling and Simulation (Operations Research Analyst) Support for COPS

The Contractor shall implement the requirements of paragraph 3.2.2.3.5.6 for COPS.

3.2.2.3.5.6.3 Modeling and Simulation (Operations Research Analyst) Support for PDA

The Contractor shall implement the requirements of paragraph 3.2.2.3.5.6 for PDA.

3.2.2.3.5.6.4 Modeling and Simulation (Operations Research Analyst) Support for PDS

The Contractor shall implement the requirements of paragraph 3.2.2.3.5.6 for PDS.

3.2.2.3.5.6.5 Modeling and Simulation (Operations Research Analyst) Support for PDU

The Contractor shall implement the requirements of paragraph 3.2.2.3.5.6 for PDU.

3.2.2.3.5.6.6 Modeling and Simulation (Operations Research Analyst) Support for PDX

The Contractor shall implement the requirements of paragraph 3.2.2.3.5.6 for PDX.

3.2.2.3.5.6.7 Modeling and Simulation (Operations Research Analyst) Support for PDI

The Contractor shall implement the requirements of paragraph 3.2.2.3.5.6 for PDI.

3.2.2.3.5.7 Senior Visual System Acquisition Engineer (Engineer/Scientist IV) and Visual Systems Acquisition Engineer (Engineer/Scientist II) Support

The Contractor shall support the acquisition of visual systems. The Contractor shall provide CSS personnel to support in performing the following work:

a. Provide technical oversight of visual and sensor simulation system design, development, analysis, and test and evaluation for training systems.

b. Perform preliminary engineering analysis to define simulation system requirements to meet the stated training task. This function includes providing CSS for training system and training requirements issues.

c. Define preliminary design trade-offs to provide the optimum balance of performance and cost. Establish criteria by which the optimum is judged.

d. Prepare engineering specifications and SOW inputs for visual and sensor simulation systems design.

e. Ensure the application of sound principles of human factors and human-machine interface design to the visual/sensor simulation system design.

f. Evaluate training system Contractor's proposed visual system designs relative to their technical risk and ability to meet the stated performance requirements and training objectives and for compliance with contract technical requirements.

g. Evaluate training system Contractor's test plans and detailed test procedures to determine that tests adequately verify performance to visual system specification requirements.

h. Advise training system project engineer, project manager, and integrated project team members concerning visual system design alternatives.

i. Define synthetic natural environment content requirements and advise project team on alternatives to achieve training effective visual cues in the environment model.

j. Test and evaluate the training system to establish compliance with contract technical requirements for the visual system.

k. Determine remedial actions required to achieve required levels of performance for the visual system.

l. Provide support to the system acquisition team in solving problems that arise in applying delivered visual systems to the training situation.

m. Provide consultation and engineering analysis services to support Government planning for future visual simulation systems. Provide specific recommendations on technical approach based on extrapolations of future capabilities in visual/sensor simulation. Identify training system deficiencies due to inadequate visual/sensor simulation technology.

n. Provide technical support for the visual sub-system to ensure successful integration of the complete training system. Perform engineering analysis of relationships between visual/sensor simulation and vehicle dynamics simulation; crew station motion simulation; and the instructional system components of the training system to establish critical performance parameters for all components of the system affecting integration of the system.

o. Maintain technological base in state-of-the-art image synthetic environment generation, image generation, and display techniques, and ensure application of the best technology to Government training systems.

3.2.2.3.5.7.1 Engineer/Scientist - Visual System Acquisition Support for 46T

The Contractor shall implement the requirements of paragraph 3.2.2.3.5.7 for 46T.

3.2.2.3.5.7.2 Engineer/Scientist - Visual System Acquisition Support for COPS

The Contractor shall implement the requirements of paragraph 3.2.2.3.5.7 for COPS.

3.2.2.3.5.7.3 Engineer/Scientist - Visual System Acquisition Support for PDA

The Contractor shall implement the requirements of paragraph 3.2.2.3.5.7 for PDA.

3.2.2.3.5.7.4 Engineer/Scientist - Visual System Acquisition Support for PDS

The Contractor shall implement the requirements of paragraph 3.2.2.3.5.7 for PDS.

3.2.2.3.5.7.5 Engineer/Scientist - Visual System Acquisition Support for PDU

The Contractor shall implement the requirements of paragraph 3.2.2.3.5.7 for PDU.

3.2.2.3.5.7.6 Engineer/Scientist - Visual System Acquisition Support for PDX

The Contractor shall implement the requirements of paragraph 3.2.2.3.5.7 for PDX.

3.2.2.3.5.7.7 Engineer/Scientist - Visual System Acquisition Support for PDI

The Contractor shall implement the requirements of paragraph 3.2.2.3.5.7 for PDI.

3.2.2.3.5.8 Synthetic Natural Environment (SNE) (Operations Research Analyst) Support

The Contractor shall support SNE efforts. The Contractor shall provide CSS personnel to support in performing the following work:

a. Provide technical support for visual, sensor, and Computer Generated Forces (CGF) synthetic natural environment design and development.

b. Design and develop visual, sensor, and CGF synthetic natural environments which meet stated performance requirements and training objectives. Develop 3-dimensional (3-D) models at various levels of detail to meet project requirements.

c. Define synthetic natural environment content requirements and advise project teams on alternatives to achieve training effective visual cues in the environment model.

d. Evaluate Synthetic Natural Environment (SNE) database design, tools, and processes relative to ability to meet stated performance requirements and training objectives.

e. Advise the training system project engineer, project manager, and IPT members concerning SNE design alternatives.

f. Determine remedial actions required to achieve required levels of SNE performance.

g. Provide technical support to ensure successful integration and performance of the SNE on the targeted visual/sensor/CGF system.

h. Maintain technological base in state-of-the-art image synthetic environment generation and tools, and ensure application of the best technology to Government training systems.

3.2.2.3.5.8.1 Synthetic Natural Environment (SNE) (Operations Research Analyst) Support for 46T

The Contractor shall implement the requirements of paragraph 3.2.2.3.5.8 for 46T.

3.2.2.3.5.8.2 Synthetic Natural Environment (SNE) (Operations Research Analyst) Support for COPS

The Contractor shall implement the requirements of paragraph 3.2.2.3.5.8 for COPS.

3.2.2.3.5.8.3 Synthetic Natural Environment (SNE) (Operations Research Analyst) Support for PDA

The Contractor shall implement the requirements of paragraph 3.2.2.3.5.8 for PDA.

3.2.2.3.5.8.4 Synthetic Natural Environment (SNE) (Operations Research Analyst) Support for PDS

The Contractor shall implement the requirements of paragraph 3.2.2.3.5.8 for PDS.

3.2.2.3.5.8.5 Synthetic Natural Environment (SNE) (Operations Research Analyst) Support for PDU

The Contractor shall implement the requirements of paragraph 3.2.2.3.5.8 for PDU.

3.2.2.3.5.8.6 Synthetic Natural Environment (SNE) (Operations Research Analyst) Support for PDX

The Contractor shall implement the requirements of paragraph 3.2.2.3.5.8 for PDX.

3.2.2.3.5.8.7 Synthetic Natural Environment (SNE) (Operations Research Analyst) Support for PDI

The Contractor shall implement the requirements of paragraph 3.2.2.3.5.8 for PDI.

3.2.2.3.5.9 Senior Aeronautical Simulation Engineering (Engineer/Scientist V) and Flight Simulation Tactical Environment Expert (Engineer/Scientist V) Support

The Contractor shall support flight simulation efforts. The Contractor shall provide CSS personnel to support in performing the following work:

a. Perform engineering analysis and planning, preliminary design, design evaluation, design review, and test and validation of flight simulation systems.

b. Establish training system performance requirements in terms of kinematic and aerodynamic modeling methods from both engineering design and software implementation aspects, computer hardware capabilities, design data and validation criteria data issues, debugging and validation test methodologies, and kinesthetic and tactile pilot/operator cueing systems such as motion platforms and control loading systems.

c. Perform studies, detailed analysis, literature searches, and exploratory projects to identify solutions to specific critical problems when existing technology cannot provide a satisfactory solution or where technical or training risk is unusually high.

d. Provide consultation and engineering analysis to support Government planning for future flight simulation systems. Provide specific recommendations on technical approach based on extrapolations of future capabilities in flight simulation.

e. Perform engineering analysis of relationships between flight simulation, pilot feel and motion cueing, visual simulation, and other simulation areas to establish critical performance parameters for all elements of the system affecting integration of the system.

f. Provide consultation and training for other Government flight simulation specialists.

g. Develop corrections or originate replacements to trainer math models, participate in software/hardware modification efforts relating to flight simulation, and provide CSS during the test effort to validate these modifications.

h. Develop, evaluate, and refine new flight fidelity test methods and data analysis techniques.

i. Conduct analyses of available data on aircraft performance, flying qualities, and flight systems operation to define the flight simulation envelope with associated performance parameters as required by the training missions and objectives identified by user commands.

j. Determine areas where pilot performance indices have to be established to evaluate trainer performance.

k. Conduct in-depth analyses of new or emerging simulation and modeling technology and testing concepts to achieve optimum quantitative engineering criteria for aircraft performance and flying qualities and systems operation for the training system specifications.

l. Analyze the M&S impact of digital computer hardware/software system design, including the possibility of interfacing aircraft hardware (computers, actuators, etc.) and software with the simulation under consideration.

m. Develop design analyses, cost estimates, technical approaches, and other planning documents for flight simulation training system elements and other related M&S applications.

n. Formulate sections of detailed training system specifications related to flight simulation, especially for complex and high risk applications, to establish degree of simulation fidelity, performance tolerances, and other performance requirements.

o. Identify critical or potential engineering problem areas relating to flight simulation, in order to elicit specific information from proposed industry design approaches.

p. Evaluate technical engineering proposals IAW Government established criteria.

q. Develop Navy testing milestones for flight fidelity to include test planning, analysis of test results, and corrective recommendations to flight fidelity deficiencies.

r. Perform the following flight simulation tactical environment tasks:

(1) Perform aircraft tactical environment analysis, testing, and validation.

(2) Provide expert technical consultation and guidance for tactical player characteristics and tactical system operation (stand alone as well as networked applications) to include:

(a) M&S of complex player (aircraft and missiles) dynamic models.

(b) Complex player (fighter and attack aircraft tactical logic) behavioral models.

(c) Instructional interfaces (Instructor/Operator Station (IOS) and model editing).

(d) Develop advanced methods for obtaining and evaluating design data.

(e) Develop advanced validation methods.

3.2.2.3.5.9.1 Engineer/Scientist V Support for 46T

The Contractor shall implement the requirements of paragraph 3.2.2.3.5.9 for 46T.

3.2.2.3.5.9.2 Engineer/Scientist V Support for COPS

The Contractor shall implement the requirements of paragraph 3.2.2.3.5.9 for COPS.

3.2.2.3.5.9.3 Engineer/Scientist V Support for PDA

The Contractor shall implement the requirements of paragraph 3.2.2.3.5.9 for PDA.

3.2.2.3.5.9.4 Engineer/Scientist V Support for PDS

The Contractor shall implement the requirements of paragraph 3.2.2.3.5.9 for PDS.

3.2.2.3.5.9.5 Engineer/Scientist V Support for PDU

The Contractor shall implement the requirements of paragraph 3.2.2.3.5.9 for PDU.

3.2.2.3.5.9.6 Engineer/Scientist V Support for PDX

The Contractor shall implement the requirements of paragraph 3.2.2.3.5.9 for PDX.

3.2.2.3.5.9.7 Engineer/Scientist V Support for PDI

The Contractor shall implement the requirements of paragraph 3.2.2.3.5.9 for PDI.

3.2.2.3.5.10 Aircrew Training Devices Instructor (Pilot) Support

The Contractor shall support systems analysis and testing efforts. The Contractor shall provide CSS personnel to support in performing the following work:

a. Provide liaison with Fleet representatives to help define future training requirements.

b. Provide consultation in the development of detailed training system specifications related to flight simulation to establish degree of simulation fidelity and performance requirements.

c. Evaluate technical proposals IAW Government established criteria.

d. Participate in design reviews and Integrated Project Teams (IPTs) working groups (visual data base, test and evaluation, malfunctions etc.).

e. Provide piloting skills and aircraft knowledge required to support flight trainer evaluations (Navy Preliminary Evaluation (NPE), Government Preliminary Inspection (GPI), Government Final Inspection (GFI), Mission Evaluation (ME) and deficiency recheck testing).

f. Provide liaison with Fleet pilots during testing events.

g. Provide consultation and training (i.e., advanced aero modeling training and other SME related training) for other Government IPT members.

3.2.2.3.5.10.1 Aircrew Training Devices Instructor (Pilot) Support for 46T

The Contractor shall implement the requirements of paragraph 3.2.2.3.5.10 for 46T.

3.2.2.3.5.10.2 Aircrew Training Devices Instructor (Pilot) Support for COPS

The Contractor shall implement the requirements of paragraph 3.2.2.3.5.10 for COPS.

3.2.2.3.5.10.3 Aircrew Training Devices Instructor (Pilot) Support for PDA

The Contractor shall implement the requirements of paragraph 3.2.2.3.5.10 for PDA.

3.2.2.3.5.10.4 Aircrew Training Devices Instructor (Pilot) Support for PDS

The Contractor shall implement the requirements of paragraph 3.2.2.3.5.10 for PDS.

3.2.2.3.5.10.5 Aircrew Training Devices Instructor (Pilot) Support PDU

The Contractor shall implement the requirements of paragraph 3.2.2.3.5.10 for PDU.

3.2.2.3.5.10.6 Aircrew Training Devices Instructor (Pilot) Support for PDX

The Contractor shall implement the requirements of paragraph 3.2.2.3.5.10 for PDX.

3.2.2.3.5.10.7 Aircrew Training Devices Instructor (Pilot) for PDI

The Contractor shall implement the requirements of paragraph 3.2.2.3.5.10 for PDI.

3.2.2.3.5.11 Master Interoperability Engineering (Engineer/Scientist IV) Support

The Contractor shall support master interoperability engineering efforts. The Contractor shall provide CSS personnel to support in performance of the following work:

a. Participate in training device design reviews and review training device design documentation to assess compliance with interoperability requirements.

b. Ascertain barriers to interoperability in the existing training devices and identify possible solutions.

c. Field questions from Navy Aviation Simulation Master Plan (NASMP) platform and common product software developers regarding implementation on interoperability requirements and aid in troubleshooting problems encountered during development.

d. Provide technical analysis of stakeholder proposed changes to the NASMP Federation Agreements Document (FAD) and Federation Objects Model (FOM) and identify potential impacts to other NASMP stakeholders.

e. Support NASMP Federation Working Group (FWG) meetings.

f. Integrate new aviation platforms into distributed exercises with other NASMP platforms, the Navy Continuous Training Environment, and Virtual Flag.

g. Assist in NASMP tool development.

3.2.2.3.5.11.1 Master Interoperability Engineering (Engineer/Scientist IV) Support for 46T
The Contractor shall implement the requirements of paragraph 3.2.2.3.5.11 for 46T.

3.2.2.3.5.11.2 Master Interoperability Engineering (Engineer/Scientist IV) Support for COPS
The Contractor shall implement the requirements of paragraph 3.2.2.3.5.11 for COPS.

3.2.2.3.5.11.3 Master Interoperability Engineering (Engineer/Scientist IV) Support for PDA
The Contractor shall implement the requirements of paragraph 3.2.2.3.5.11 for PDA.

3.2.2.3.5.11.4 Master Interoperability Engineering (Engineer/Scientist IV) Support for PDS
The Contractor shall implement the requirements of paragraph 3.2.2.3.5.11 for PDS.

3.2.2.3.5.11.5 Master Interoperability Engineering (Engineer/Scientist IV) Support for PDU
The Contractor shall implement the requirements of paragraph 3.2.2.3.5.11 for PDU.

3.2.2.3.5.11.6 Master Interoperability Engineering (Engineer/Scientist IV) Support for PDX
The Contractor shall implement the requirements of paragraph 3.2.2.3.5.11 for PDX.

3.2.2.3.5.11.7 Master Interoperability Engineering (Engineer/Scientist IV) Support for PDI
The Contractor shall implement the requirements of paragraph 3.2.2.3.5.11 for PDI.

3.2.2.3.5.12 Interoperability Engineering (Engineer/Scientist II) Support
The Contractor shall support interoperability engineering efforts. The Contractor shall provide CSS personnel to support in performing of the following work:

a. Participate in training device design reviews and review training device design documentation to assess compliance with interoperability requirements.

b. Ascertain barriers to interoperability in the existing training devices and identify possible solutions.

c. Field questions from Navy Aviation Simulation Master Plan (NASMP) platform and common product software developers regarding implementation on interoperability requirements and aid in troubleshooting problems encountered during development.

d. Support NASMP Federation Working Group (FWG) meetings.

e. Integrate new aviation platforms into distributed exercises with other NASMP platforms, the Navy Continuous Training Environment, and Virtual Flag.

f. Assist in NASMP tool development.

3.2.2.3.5.12.1 Interoperability Engineering (Engineer/Scientist II) Support for 46T
The Contractor shall implement the requirements of paragraph 3.2.2.3.5.12 for 46T.

3.2.2.3.5.12.2 Interoperability Engineering (Engineer/Scientist II) Support for COPS
The Contractor shall implement the requirements of paragraph 3.2.2.3.5.12 for COPS.

3.2.2.3.5.12.3 Interoperability Engineering (Engineer/Scientist II) Support for PDA
The Contractor shall implement the requirements of paragraph 3.2.2.3.5.12 for PDA.

3.2.2.3.5.12.4 Interoperability Engineering (Engineer/Scientist II) Support for PDS
The Contractor shall implement the requirements of paragraph 3.2.2.3.5.12 for PDS.

3.2.2.3.5.12.5 Interoperability Engineering (Engineer/Scientist II) Support for PDU
The Contractor shall implement the requirements of paragraph 3.2.2.3.5.12 for PDU.

3.2.2.3.5.12.6 Interoperability Engineering (Engineer/Scientist II) Support for PDX
The Contractor shall implement the requirements of paragraph 3.2.2.3.5.12 for PDX.

3.2.2.3.5.12.7 Interoperability Engineering (Engineer/Scientist II) Support for PDI
The Contractor shall implement the requirements of paragraph 3.2.2.3.5.12 for PDI.

3.2.2.3.5.13 Systems Analyst Support
The Contractor shall support systems analysis efforts. The Contractor shall provide CSS personnel to support in performing the following work:

a. Develop cost and lead-time estimates for systems to be developed.
b. Prepare budgets and plans for purchase and maintenance of systems.
c. Plan, coordinate, schedule, and execute investigations, feasibility studies, and surveys.
d. Conduct engineering analyses and provide recommendations to ensure that designs are cost effective and satisfy requirements.
e. Analyze requirements and design systems. Designs shall provide alternatives with trade-off analyses and risk assessments.
f. Provide professional engineering skills and knowledge in solving problems that arise during the design, development, or modification of systems.
g. Conduct experiments using the scientific method.
h. Monitor and assess system hardware and software development and provide CSS in resolving issues.
i. Provide status of systems under development.
j. Review system designs.
k. Conduct tests for the acceptance of systems.

3.2.2.3.5.13.1 Systems Analyst Support for 46T
The Contractor shall implement the requirements of paragraph 3.2.2.3.5.13 for 46T.

3.2.2.3.5.13.2 Systems Analyst Support for COPS
The Contractor shall implement the requirements of paragraph 3.2.2.3.5.13 for COPS.

3.2.2.3.5.13.3 Systems Analyst Support for PDA

The Contractor shall implement the requirements of paragraph 3.2.2.3.5.13 for PDA.

3.2.2.3.5.13.4 Systems Analyst Support for PDS

The Contractor shall implement the requirements of paragraph 3.2.2.3.5.13 for PDS.

3.2.2.3.5.13.5 Systems Analyst Support for PDU

The Contractor shall implement the requirements of paragraph 3.2.2.3.5.13 for PDU.

3.2.2.3.5.13.6 Systems Analyst Support for PDX

The Contractor shall implement the requirements of paragraph 3.2.2.3.5.13 for PDX.

3.2.2.3.5.13.7 Systems Analyst Support for PDI

The Contractor shall implement the requirements of paragraph 3.2.2.3.5.13 for PDI.

3.2.2.3.5.14 Computer/Electronics Engineering (Engineer/Scientist II) Support

The Contractor shall support computer/electronics engineering efforts for training and simulation systems. The Contractor shall provide CSS personnel to support in performing the following work:

a. Develop software and hardware techniques for simulation, training, and simulation-based acquisition applications.

b. Plan, develop, and conduct systematic engineering research investigations concerned with the development of improved training technologies, simulation techniques, and simulation-based acquisition methodologies. Apply simulation, modeling, and training technologies; experimental design methods; and computer software and hardware technologies in the engineering research investigations.

c. Conduct experimental research in areas where present data, criteria, methods, or techniques are significantly inadequate, controversial, or contain critical gaps, in order to arrive at completely new techniques that may have applicability to problem areas under investigation. Write reports on the research and present findings to Government, commercial, or private agencies.

d. Apply results of investigations to determine the feasibility and design parameters of new virtual environments and simulated systems with emphasis on technologies associated with advanced system designs; development and application of feasible and cost effective techniques for use in weapons simulation systems. Based on results of investigations, accomplish and verify specific technology by the implementation of virtual worlds and simulated devices into demonstrable test beds or training systems. Coordinate these efforts with other personnel engaged in related fields of study and application to reduce the possibility of program duplication and maximize benefits.

e. Prepare technical specifications and procurement data for advanced studies and developments. Attend bidder conferences to explain the requirements of the contract and to answer questions pertaining thereto.

f. Recommend most suitable technical approach taking into consideration proposed approach to problem, personnel, and facilities to be utilized. Monitor and evaluate the progress

of applied research and advanced development requiring the application of new techniques or methods. Render solutions concerning the applicability of technical methodology used, degree of conformance to requirements, and overall project performance.

g. Study and evaluate engineering proposals submitted by Contractor personnel containing radically new or novel approaches, criteria, techniques, and engineering and software design. Render scientific judgments, recommend modifications and alterations and/or determine feasibility of approaches and design features, desirability and acceptability of such engineering proposals.

h. Visit Contractors' plants, other Government agencies, and Universities to discuss technical requirements and objectives of research and development projects and to review progress of contractual work.

i. Attend conferences and DOD and Navy working groups with personnel of other laboratories, industry, and other Government agencies to discuss and present research and development programs. These conferences result in elimination of unwarranted duplications, exchange of information on latest state-of-the-art technologies, resolutions of technical problem areas, reconciliation of differences of opinion, and development of new approaches or changes in programs in the assigned area.

j. Maintain continuous review and analysis of applicable research and development programs of NAWCTSD Orlando, other Laboratories, DOD, and civilian agencies, and the operational requirements received from higher headquarters to determine research and development efforts required and insure that state-of-the-art is reflected in NAWCTSD Orlando efforts to meet Navy operational requirements.

k. Maintain current awareness of technological developments in the use of computer software and hardware in the technology base for simulation, modeling, and training research investigations. Evaluate technology to predict and optimize effectiveness in training systems; e.g., scene rendering software, graphics accelerators, database modeling software and techniques, sensor simulation integration, human animated characters, and weapon tracking systems.

3.2.2.3.5.14.1 Computer/Electronics Engineering (Engineer/Scientist II) Support for 46T

The Contractor shall implement the requirements of paragraph 3.2.2.3.5.14 for 46T.

3.2.2.3.5.14.2 Computer/Electronics Engineering (Engineer/Scientist II) Support for COPS

The Contractor shall implement the requirements of paragraph 3.2.2.3.5.14 for COPS.

3.2.2.3.5.14.3 Computer/Electronics Engineering (Engineer/Scientist II) Support for PDA

The Contractor shall implement the requirements of paragraph 3.2.2.3.5.14 for PDA.

3.2.2.3.5.14.4 Computer/Electronics Engineering (Engineer/Scientist II) Support for PDS

The Contractor shall implement the requirements of paragraph 3.2.2.3.5.14 for PDS.

3.2.2.3.5.14.5 Computer/Electronics Engineering (Engineer/Scientist II) Support for PDU

The Contractor shall implement the requirements of paragraph 3.2.2.3.5.14 for PDU.

3.2.2.3.5.14.6 Computer/Electronics Engineering (Engineer/Scientist II) Support for PDX

The Contractor shall implement the requirements of paragraph 3.2.2.3.5.14 for PDX.

3.2.2.3.5.14.7 Computer/Electronics Engineering (Engineer/Scientist II) Support for PDI

The Contractor shall implement the requirements of paragraph 3.2.2.3.5.14 for PDI.

3.2.2.3.6 Senior Research Psychology Support (Subject Matter Expert I) and Research Psychology Support (Subject Matter Expert I)

The Contractor shall support research psychology efforts. The Contractor shall provide CSS personnel to support in performing the following work:

a. Plan, develop, and conduct systematic research in the areas of human factors, human performance and cognition, and training focused on the development of improved training technologies and methodologies, and the assessment of the degree to which new training technologies may be applied in military systems. Additionally, transition research findings through active participation on acquisition programs (both training systems and weapon system platforms) by influencing human systems integration (HSI) design practices. Apply modeling, simulation, and training technologies; human performance measurement methods; experimental design techniques; human factors design principles; and computer software and hardware technology in the conduct and solution of the human factors/human performance/training investigations. Initiate, design, conduct, and report research and application of research findings.

b. Identify areas for the conduct of human factors, human performance, HSI, and training research to enhance training and platform design in order to maximize human performance in military environments.

c. Develop and prepare plans for performing, scheduling, and executing major training and human factors research and development (R&D) efforts. These plans include a detailed description of the research effort, indicating the technical approach and objective, workload estimates, funding estimates, and the scheduling/coordination requirements.

d. Provide technical guidance, participate in technical conferences, and arrange for facilities and trips necessary for accomplishment of the projects. Provide close oversight of research, data analysis, and reporting to ensure an efficient and timely accomplishment of the program objectives.

e. Provide technical guidance and information to personnel in other organizational elements of the NAVAIR and/or in other agencies. The guidance and information will pertain to a wide variety of specialized human factors, human performance, and training aspects dealing with training requirements for operator and maintenance personnel.

f. Participate in the evaluation of training device prototypes to identify design deficiencies or to determine feasibility of retrofitting solutions to identified human factors and/or training technology deficiencies in existing equipment.

g. Participate in the analyses of training situations to determine and describe the training equipment approaches and requirements necessary for achieving the training objectives.

h. Serve as human factors and human performance consultant in the process of developing and utilizing training devices. Review human engineering implications and prepare summaries of pertinent human factors and training technology research, to identify and apply those principles, which are relevant to system design, development, and objectives.

i. Prepare a complete literature review in the related research area.

j. Develop original approaches, theoretical formulations, and sound experimental design.

k. Collect and analyze research data.

l. Prepare reports of findings for professional distribution and for professional journal publications.

m. Conduct research designed to identify critical parameters of human performance, human cognition, and training technology for application to training system design. In this research program, a variety of factors and technologies will be investigated. For example, laboratory and field research may investigate instructional variables that affect the cost and effectiveness of training systems. The results of these investigations will support the development of training principles to improve training system design.

n. Incorporate state-of-the-art training technologies that provide solutions to human factors problems encountered in training system design and use.

o. Collaborate with other research personnel in the conduct of experimental investigations, which cover a broad advanced program of applied research in human behavior. This research is designed to acquire data for the generation of new concepts, which are applicable for optimizing human performance in training and to obtain information to be used in the development of new training devices and procedures.

p. Maintain currency in the areas of experimental and engineering psychology, be familiar with new developments in the use of computer software and hardware in human factors, simulation, and training, the interfacing of computer systems with standard and special training equipment, and the design of software techniques for stimulus generation, response acquisition and data analysis for on-line training experimentation. Maintain familiarity and currency with training technology and advancements through the review of psychological and training literature, and visits to universities, Government labs, and industry.

q. Furnish guidance concerning the appropriateness of employing computers in training research and training system design investigations and/or applications. Also, conceive and provide guidance for the design of software techniques for stimulus generations, response acquisition, and data analysis.

r. Coordinate R&D plans with Government and private groups to establish Navy needs for the R&D approaches for implementing the plan; prepare procurement packages, and provide procurement management solutions for effective Contractor support of research projects.

s. Formulate and conduct research for the development of training technology and human factors methods to advance the instructor-trainee interfaces and effectiveness of training systems.

t. Provide support for the acquisition and administration of laboratory equipment and equipment services.

u. Conduct research using experimental research design, psychometrics, and statistical analysis. Perform statistical analyses of data in order to determine significant relationships among behavioral performance, training effectiveness, and cost effectiveness measures.

3.2.2.3.6.1 Research Psychology Support for 46T

The Contractor shall implement the requirements of paragraph 3.2.2.3.6 for 46T.

3.2.2.3.6.2 Research Psychology Support for COPS

The Contractor shall implement the requirements of paragraph 3.2.2.3.6 for COPS.

3.2.2.3.6.3 Research Psychology Support for PDA

The Contractor shall implement the requirements of paragraph 3.2.2.3.6 for PDA.

3.2.2.3.6.4 Research Psychology Support for PDS

The Contractor shall implement the requirements of paragraph 3.2.2.3.6 for PDS.

3.2.2.3.6.5 Research Psychology Support for PDU

The Contractor shall implement the requirements of paragraph 3.2.2.3.6 for PDU.

3.2.2.3.6.6 Research Psychology Support for PDX

The Contractor shall implement the requirements of paragraph 3.2.2.3.6 for PDX.

3.2.2.3.6.7 Research Psychology Support for PDI

The Contractor shall implement the requirements of paragraph 3.2.2.3.6 for PDI.

3.2.2.3.7 Instructional Systems Designer Support (Training Specialist)

3.2.2.3.7.1 Instructional Systems Designer (Training Specialist II) and Senior Instructional Designer Support (Training Specialist III)

The Contractor shall support instructional systems analysis and design efforts. Instructional systems design involves the implementation of and adherence to a systematic design process for effective and efficient learning. Using an instructional systems design (ISD) model, a human performance improvement model, and human systems integration guidance, the Contractor shall provide instructional systems analysis support. The Contractor shall provide CSS personnel to support in performing the following work:

a. Conduct analyses to identify and validate training requirements and document results of analyses.

b. Assist with the development of acquisition-related documents.

c. Design and conduct analyses in support of HSI to include selecting methodology, designing instruments, collecting and analyzing data and reporting results.

d. Design and implement training-related human performance improvement (HPI) interventions.

e. Apply validated research to support learning decisions.

f. Develop and recommend alternative training strategies for consideration by decision-makers.

g. Design, develop, and implement instruction in a systematic manner. Select instructional media, materials, and equipment to meet learning objectives.

h. Plan and accomplish production of instructional materials, e.g., Authoring Instructional Materials, Content Planning Module, Computer-Assisted Instruction and supporting documents.

i. Design, develop, and implement prototype and final courseware for interactive multi-media, computer-based, web-based, and distributed learning presentations to include gaming applications.

j. Apply Instructional Systems Development principles in the development of new/modified training devices.

k. Evaluate training product development and training effectiveness.

l. Provide inputs to a data base system for maintaining assigned training systems hardware, software, and courseware operational and currency status.

m. Instruct client personnel on procedures, processes, and methods of operating, maintaining, revising, and enhancing the assigned training system.

n. Use appropriate industry and Government standards and specifications.

o. Provide CSS in preparing the following Products/Documents/Reports:

(1) ISD: Training Situation Analyses, Training System Functional Descriptions, Military Characteristics, Instructional Performance Requirements, Instructional Media Requirements, Instructional Media Design, Training Program Structure, Course Conduct Information, Training Conduct Support, Training Evaluation, Test Package, Instructional Media Package, Training Systems Support; Electronic Performance Support Systems (EPSS);

(2) HSI: Mission Analysis, Mission Scenarios, Functional Flow Block Diagrams, Operational Sequence Diagrams, Performance Baseline Specifications, Quality Function Descriptions, Top Down Functional Analysis, Workload Analysis, Test Analysis, Manpower Estimation;

(3) HPI: Business Analysis, Performance Analysis, Root Cause Analysis, Intervention Performance, HPI Evaluation; Plan of Action & Milestones (POA&M).

3.2.2.3.7.1.1 Instructional Systems Designer and Senior Instructional Designer Support for 46T

The Contractor shall implement the requirements of paragraph 3.2.2.3.7.1 for 46T.

3.2.2.3.7.1.2 Instructional Systems Designer and Senior Instructional Designer Support for COPS

The Contractor shall implement the requirements of paragraph 3.2.2.3.7.1 for COPS.

3.2.2.3.7.1.3 Instructional Systems Designer and Senior Instructional Designer Support for PDA

The Contractor shall implement the requirements of paragraph 3.2.2.3.7.1 for PDA.

3.2.2.3.7.1.4 Instructional Systems Designer and Senior Instructional Designer Support for PDS

The Contractor shall implement the requirements of paragraph 3.2.2.3.7.1 for PDS.

3.2.2.3.7.1.5 Instructional Systems Designer and Senior Instructional Designer Support for PDU

The Contractor shall implement the requirements of paragraph 3.2.2.3.7.1 for PDU.

3.2.2.3.7.1.6 Instructional Systems Designer and Senior Instructional Designer Support for PDX

The Contractor shall implement the requirements of paragraph 3.2.2.3.7.1 for PDX.

3.2.2.3.7.1.7 Instructional Systems Designer and Senior Instructional Designer Support for PDI

The Contractor shall implement the requirements of paragraph 3.2.2.3.7.1 for PDI.

3.2.2.3.7.2 Instructional Systems Administration Support (Technical Writer I)

The Contractor shall support instructional systems administration efforts. The Contractor shall provide CSS personnel to support in planning and executing management and administrative services essential for the analysis, design, development, and evaluation of military training systems. The Contractor shall provide CSS personnel to support in performing the following work:

a. Develop and execute strategies to acquire training system components; identify efficient means for conducting procurement phases; and develop specifications and proposal plans.

b. Develop and generate procurement components.

c. Process documentation for electronic entry and attach supporting documents in Cyberdocs.

d. Produce specific charts, graphs, databases, or other products that summarize the data collected in a manner that is understood and usable by the customer.

e. Perform data collection, data organization, data analysis, and report generation.

f. Prepare the following Products/Documents/Reports: Contract Schedules, Contract Data Requirements Lists, Tracking Documentation, Business Graphics and Databases.

3.2.2.3.7.2.1 Instructional Systems Administration Support for 46T

The Contractor shall implement the requirements of paragraph 3.2.2.3.7.2 for 46T.

3.2.2.3.7.2.2 Instructional Systems Administration Support for COPS

The Contractor shall implement the requirements of paragraph 3.2.2.3.7.2 for COPS.

3.2.2.3.7.2.3 Instructional Systems Administration Support for PDA

The Contractor shall implement the requirements of paragraph 3.2.2.3.7.2 for PDA.

3.2.2.3.7.2.4 Instructional Systems Administration Support for PDS

The Contractor shall implement the requirements of paragraph 3.2.2.3.7.2 for PDS.

3.2.2.3.7.2.5 Instructional Systems Administration Support for PDU

The Contractor shall implement the requirements of paragraph 3.2.2.3.7.2 for PDU.

3.2.2.3.7.2.6 Instructional Systems Administration Support for PDX

The Contractor shall implement the requirements of paragraph 3.2.2.3.7.2 for PDX.

3.2.2.3.7.2.7 Instructional Systems Administration Support for PDI

The Contractor shall implement the requirements of paragraph 3.2.2.3.7.2 for PDI.

3.2.2.3.7.3 Industrial/Organizational Psychologist Support (Subject Matter Expert I)

The Contractor shall support industrial/organization psychology efforts. Industrial/organizational psychology applies principles of psychology to personnel, administration, management, and human performance problems. Using a human performance improvement model and human systems integration guidance, the Contractor shall provide industrial/organizational psychology support. The Contractor shall provide CSS personnel support in performing the following work:

a. Conduct analyses to identify and validate job performance requirements and document results of analyses.

b. Develop and apply human performance metrics for use in development, remediation and evaluation of instructional materials.

c. Analyze organizational manpower requirements.

d. Analyze organizational personnel requirements.

e. Design and implement human performance improvement interventions.

f. Perform training effectiveness evaluations.

g. Conduct human systems integration analyses.

h. Develop surveys to assess job satisfaction as well as other type of surveys related to organization behavior, management, and human resources.

i. Evaluate learning and instruction using formative and summative evaluation techniques.

j. Use appropriate industry and Government standards and specifications.

k. Prepare the following Products/Documents/Reports:

(1) Job Task Analyses; Manpower and Personnel Analyses; inputs to ISD products;

(2) HSI - Mission Analysis, Mission Scenarios, Functional Flow Block Diagrams, Operational Sequence Diagrams, Performance Baseline Specifications, Quality Function Descriptions, Top Down Functional Analysis, Workload Analysis, Test Analysis, Manpower Estimation;

(3) HPI - Business Analysis, Performance Analysis, Root Cause Analysis, Intervention Performance, HPI Evaluation.

3.2.2.3.7.3.1 Industrial/Organizational Psychologist Support for 46T

The Contractor shall implement the requirements of paragraph 3.2.2.3.7.3 for 46T.

3.2.2.3.7.3.2 Industrial/Organizational Psychologist Support for COPS

The Contractor shall implement the requirements of paragraph 3.2.2.3.7.3 for COPS.

3.2.2.3.7.3.3 Industrial/Organizational Psychologist Support for PDA

The Contractor shall implement the requirements of paragraph 3.2.2.3.7.3 for PDA.

3.2.2.3.7.3.4 Industrial/Organizational Psychologist Support for PDS

The Contractor shall implement the requirements of paragraph 3.2.2.3.7.3 for PDS.

3.2.2.3.7.3.5 Industrial/Organizational Psychologist Support for PDU

The Contractor shall implement the requirements of paragraph 3.2.2.3.7.3 for PDU.

3.2.2.3.7.3.6 Industrial/Organizational Psychologist Support for PDX

The Contractor shall implement the requirements of paragraph 3.2.2.3.7.3 for PDX.

3.2.2.3.7.3.7 Industrial/Organizational Psychologist Support for PDI

The Contractor shall implement the requirements of paragraph 3.2.2.3.7.3 for PDI.

3.2.2.3.7.4 Training Specialist/Subject Matter Expert Support (Training Specialist II)

The Contractor shall support training specialist/subject matter expert tasks by providing knowledge and expertise in the operation, employment, maintenance, or repair of systems, subsystems, or equipment related to military training systems. The Contractor shall provide CSS personnel to support in performing the following work:

a. Assure the technical and operational accuracy of the subject matter undergoing training product development.

b. Assist the Instructional Systems Analyst in the design, development, and evaluation of curriculum in the field of specialty required for the project.

c. Conduct analyses to identify or validate requirements for training systems used to train personnel in a required field of specialty.

d. Provide classroom instruction in the field of specialty required for the project.

e. Apply knowledge and skill in interpersonal communications with civilian and military personnel, including oral briefings/presentations, listening techniques, and developing written material, especially technical reports documenting research and analysis performed, e.g., MIL-PRF-29612 and MIL-HDBK-29612.

f. Apply knowledge of DOD and Navy guidance documents to support the development of analytical products, training systems and equipment.

g. Apply knowledge of instructional teaching methods and media in support of curriculum development conducted in military schoolhouse settings.

h. Support the Instructional Systems Analyst and Industrial/Organizational Psychologist in the design and implementation of training-related human performance improvement (HPI) interventions in a required field of specialty.

i. Support the Instructional Systems Analyst with instructing client personnel on procedures, processes, and methods of operating, maintaining, revising, and enhancing the assigned training system.

3.2.2.3.7.4.1 Training Specialist/Subject Matter Expert Support for 46T

The Contractor shall implement the requirements of paragraph 3.2.2.3.7.4 for 46T.

3.2.2.3.7.4.2 Training Specialist/Subject Matter Expert Support for COPS

The Contractor shall implement the requirements of paragraph 3.2.2.3.7.4 for COPS.

3.2.2.3.7.4.3 Training Specialist/Subject Matter Expert Support for PDA

The Contractor shall implement the requirements of paragraph 3.2.2.3.7.4 for PDA.

3.2.2.3.7.4.4 Training Specialist/Subject Matter Expert Support for PDS

The Contractor shall implement the requirements of paragraph 3.2.2.3.7.4 for PDS.

3.2.2.3.7.4.5 Training Specialist/Subject Matter Expert Support for PDU

The Contractor shall implement the requirements of paragraph 3.2.2.3.7.4 for PDU.

3.2.2.3.7.4.6 Training Specialist/Subject Matter Expert Support for PDX

The Contractor shall implement the requirements of paragraph 3.2.2.3.7.4 for PDX.

3.2.2.3.7.4.7 Training Specialist/Subject Matter Expert Support for PDI

The Contractor shall implement the requirements of paragraph 3.2.2.3.7.4 for PDI.

3.2.2.3.7.5 Training Analyst Support (Training Specialist II)

The Contractor shall support training analyst efforts. The Contractor shall serve as a professional resource in the research and analysis of training problems, the application and utilization of training technology, and the evaluation of training systems. The Contractor shall provide CSS personnel to support in performing the following work:

a. Develop POA&M(s), research proposals, research designs and strategies, progress reports, and prepare final reports.

b. Serve as advisor and consultant to various NAWCTSD Orlando acquisition functions and other Navy and DOD organizations on matters relating to instructional technologies and methodologies.

c. Communicate with professionals in the field of military and industrial training and transfer the advances in instructional technology for collecting and evaluating data to assigned tasks.

d. Provide guidance for meetings and conferences to coordinate research efforts and to provide an interface with other technical codes of NAWCTSD Orlando and other training activities and agencies.

e. Support the Instructional Systems Analysts in identifying/validating training requirements.

f. Support the Industrial/Organizational (I/O) Psychologist in developing human performance metrics.

g. Develop target audience learning profiles.

h. Provide technical expertise in developing straw man task lists to expedite the task analysis process.

i. Guide the conduct of task analysis workshops.

j. Support the Instructional Systems Analyst in determining the most appropriate courseware presentation and media for the subject matter.

k. Provide consultation concerning the level of difficulty of assessment items.

3.2.2.3.7.5.1 Training Analyst Support for 46T

The Contractor shall implement the requirements of paragraph 3.2.2.3.7.5 for 46T.

3.2.2.3.7.5.2 Training Analyst Support for COPS

The Contractor shall implement the requirements of paragraph 3.2.2.3.7.5 for COPS.

3.2.2.3.7.5.3 Training Analyst Support for PDA

The Contractor shall implement the requirements of paragraph 3.2.2.3.7.5 for PDA.

3.2.2.3.7.5.4 Training Analyst Support for PDS

The Contractor shall implement the requirements of paragraph 3.2.2.3.7.5 for PDS.

3.2.2.3.7.5.5 Training Analyst Support for PDU

The Contractor shall implement the requirements of paragraph 3.2.2.3.7.5 for PDU.

3.2.2.3.7.5.6 Training Analyst Support for PDX

The Contractor shall implement the requirements of paragraph 3.2.2.3.7.5 for PDX.

3.2.2.3.7.5.7 Training Analyst Support for PDI

The Contractor shall implement the requirements of paragraph 3.2.2.3.7.5 for PDI.

3.2.2.3.7.6 Graphic Artist Support

The Contractor shall support graphic artist efforts. The Contractor shall develop various instructional media products. The Contractor shall provide CSS personnel to support in performing the following work:

a. Use computer software, computer design techniques, and computer-generated media to design new images.

b. Create materials for interactive technologies (computer-based training, interactive courseware, web-based training, distance learning and tele-training support materials, interactive electronic technical manuals, electronic teaching or instruction tools, and electronic performance support systems).

c. Use computer-aided design systems and artistic techniques to create and revise still graphics and animations.

d. Provide assistance to the instructional development team to layout and design instructional media. Draw storyboards to guide development during the production of computer-based training, web-based training, films, and videos.

e. Prepare the following Products/Documents/Reports, as a minimum: Products/ Documents/Reports include Computer-based Images and Graphics, Animations, Storyboards, Electronic Technical Manuals, EPSS.

3.2.2.3.7.6.1 Graphic Artist Support for 46T

The Contractor shall implement the requirements of paragraph 3.2.2.3.7.6 for 46T.

3.2.2.3.7.6.2 Graphic Artist Support for COPS

The Contractor shall implement the requirements of paragraph 3.2.2.3.7.6 for COPS.

3.2.2.3.7.6.3 Graphic Artist Support for PDA

The Contractor shall implement the requirements of paragraph 3.2.2.3.7.6 for PDA.

3.2.2.3.7.6.4 Graphic Artist Support for PDS

The Contractor shall implement the requirements of paragraph 3.2.2.3.7.6 for PDS.

3.2.2.3.7.6.5 Graphic Artist Support for PDU

The Contractor shall implement the requirements of paragraph 3.2.2.3.7.6 for PDU.

3.2.2.3.7.6.6 Graphic Artist Support for PDX

The Contractor shall implement the requirements of paragraph 3.2.2.3.7.6 for PDX.

3.2.2.3.7.6.7 Graphic Artist Support for PDI

The Contractor shall implement the requirements of paragraph 3.2.2.3.7.6 for PDI.

3.2.2.3.7.7 Web Development (Computer Programmer III and IV) Support

The Contractor shall provide CSS personnel to support in development, troubleshooting and maintenance of the NAWCTSD internal and external websites as follows:

a. Develop web site enhancements including web applications using ColdFusion and other web authoring application software.
b. Code, test and debug web page/application enhancements and revisions for the internal and external website along with integrating graphics and user interfaces.

Note that although specific network administration knowledge is required, this knowledge will be used to aid the existing network administrators when solving problems related to web servers, web services and web application performance. The Contractor will not be required to perform most network administration tasks.

3.2.2.3.7.7.1 Web Development (Computer Programmer III and IV) Support for 46T

The Contractor shall implement the requirements of paragraph 3.2.2.3.7.7 for 46T.

3.2.2.3.7.7.2 Web Development (Computer Programmer III and IV) Support for COPS

The Contractor shall implement the requirements of paragraph 3.2.2.3.7.7 for COPS.

3.2.2.3.7.7.3 Web Development (Computer Programmer III and IV) Support for PDA

The Contractor shall implement the requirements of paragraph 3.2.2.3.7.7 for PDA.

3.2.2.3.7.7.4 Web Development (Computer Programmer III and IV) Support for PDS

The Contractor shall implement the requirements of paragraph 3.2.2.3.7.7 for PDS.

3.2.2.3.7.7.5 Web Development (Computer Programmer III and IV) Support for PDU

The Contractor shall implement the requirements of paragraph 3.2.2.3.7.7 for PDU.

3.2.2.3.7.7.6 Web Development (Computer Programmer III and IV) Support for PDX

The Contractor shall implement the requirements of paragraph 3.2.2.3.7.7 for PDX.

3.2.2.3.7.7.7 Web Development (Computer Programmer III and IV) Support for PDI

The Contractor shall implement the requirements of paragraph 3.2.2.3.7.7 for PDI.

3.2.2.3.8 Quality Assurance (QA) Support (Engineer/Scientist IV)

The Contractor shall support QA efforts. The Contractor shall provide CSS personnel to support in performing the following work:

a. Interpret and implement quality assurance standards.
b. Develop quality assurance policies and procedures.
c. Devise sampling procedures and directions for recording and reporting quality data.
d. Review the implementation and efficiency of quality and inspection systems.
e. Plan, conduct and monitor testing and inspection of materials and products to ensure finished product quality.
f. Review and assess projects/product related documents to ensure finished product quality.
g. Work with team members to correct issues.
h. Document internal audits and other quality assurance activities.
i. Investigate non-conformance issues.
j. Collect and compile statistical quality data.
k. Analyze data to identify areas for improvement.
l. Develop, recommend and monitor corrective and preventive actions.
m. Prepare reports to communicate outcomes of quality activities.
n. Identify training needs and organize training interventions to meet quality standards.
o. Evaluate audit findings and implement appropriate corrective actions.
p. Monitor risk management activities.
q. Assure ongoing compliance with quality and industry regulatory requirements.

3.2.2.3.8.1 Quality Assurance (QA) Support for 46T

The Contractor shall implement the requirements of paragraph 3.2.2.3.8 for 46T.

3.2.2.3.8.2 Quality Assurance (QA) Support for COPS

The Contractor shall implement the requirements of paragraph 3.2.2.3.8 for COPS.

3.2.2.3.8.3 Quality Assurance (QA) Support for PDA

The Contractor shall implement the requirements of paragraph 3.2.2.3.8 for PDA.

3.2.2.3.8.4 Quality Assurance (QA) Support for PDS

The Contractor shall implement the requirements of paragraph 3.2.2.3.8 for PDS.

3.2.2.3.8.5 Quality Assurance (QA) Support for PDU

The Contractor shall implement the requirements of paragraph 3.2.2.3.8 for PDU.

3.2.2.3.8.6 Quality Assurance (QA) Support for PDX

The Contractor shall implement the requirements of paragraph 3.2.2.3.8 for PDX.

3.2.2.3.8.7 Quality Assurance (QA) Support for PDI

The Contractor shall implement the requirements of paragraph 3.2.2.3.8 for PDI.

3.2.2.4 Information Assurance (IA) Analyst Support

The Contractor shall support IA efforts. The Contractor shall provide CSS personnel to support in performing the following work:

a. Research, design, and implement IA solutions for applicable network, computer systems, Research Development Test and Evaluation (RDT&E) laboratories and training systems.

b. Implement information assurance programs in accordance with DODI 8500.2.

c. Perform certification and accreditation activities in accordance with DODI 8510.01, DOD Information Assurance Certification and Accreditation Process (DIACAP).

3.2.2.4.1 Information Assurance Analyst Support (for Level I Computing Environments)

a. The Contractor shall support Information Assurance (IA) efforts. Level I Information Assurance Management (IAM) is defined in DOD 8570.01-M. The Contractor shall provide Level I IAM certified CSS personnel to support the following work Implement information assurance (IA) programs in accordance with DODI 8500.2 and ensure that IA related Information Security (IS) are functional and secure within the CE. IAM Level I serves as Information Assurance Officer (IAO) for the CE.

b. Manage and operate CE systems in accordance with Federal, DOD, DON and NAVAIR specific published documents.

c. Develop and maintain the certification and accreditation documentation required to achieve an Authority to Operate (ATO). Prepare and maintain information systems ATO record on the Navy's Enterprise Mission Assurance Support Service (eMASS).

d. Coordinate with CE Information Assurance Technical (IAT) personnel for technical implementation of IA program.

e. Assist the Government with related input on IA security requirements to be included in statements of work and other appropriate procurement documents.

f. Support and administer data retention and recovery within the CE.

g. Participate in the development or modification of the computer environment IA security program plans and requirements.

h. Validate users' designation for IT Level I or II sensitive positions, per DOD 5200.2-R, Series, Personnel Security Program.

i. Develop procedures to ensure system users are aware of their IA responsibilities before granting access to DOD information systems.

j. Recognize a possible security violation and take appropriate action to report the incident, as required by directives.

k. Manage protective or corrective measures when an IA incident or vulnerability is discovered.

l. Ensure that system security configuration guidelines are followed.

m. Run vulnerability assessment tools; EyeRetina vulnerability scanner, Defense Information Systems Agency (DISA) Gold Disk, Security Readiness Review (SRR) scripts and the Security Content Automation Protocol (SCAP) Compliance Checker periodically to test and maintain the CE accreditation.

n. Perform Validation and Verification Tests (Part of Certification and Accreditation Process(C&A)).

o. Ensure that IA requirements are integrated into the Continuity of Operations Plan (COOP) for that system or component.

p. Ensure that IA security requirements are appropriately identified in computer environment operation procedures.

q. Monitor system performance and review for compliance with IA security and privacy requirements within the computer environment.

r. Ensure that IA inspections, tests, and reviews are coordinated for the CE.

s. Participate in an IS risk assessment during the Certification and Accreditation process.

t. Collect and maintain data needed to meet system IA reporting requirements.

u. Notify the IAM and Designated Accrediting Authority (DAA) when changes occur on information system(s) that might affect the IA posture.

v. Report security incidents to the IAM and/or DAA in accordance with DON policies and CJCSI 6510.01F.

w. Report the security status of the accredited environment as required by the DAA, and update the C&A documentation as the information system is modified or new components are added.

x. Conduct periodic reviews to ensure compliance with the accreditation and/or certification support documentation package.

y. Follow procedures developed by the IAM, in accordance with CM policies and practices, for authorizing software use prior to its implementation on an information system. Any changes or modifications to hardware, software, or firmware of an information system must be coordinated with IAM and approved by the DAA prior to the change.

z. Ensure support to information assurance vulnerability management (IAVM) requirements and ensure security patches are installed, as appropriate. Develop and implement IAVM plan.

aa. Ensure users and system administrators of the system(s) or network(s) are provided appropriate annual network security training.

3.2.2.4.1.1 Information Assurance Analyst Support (for Level I Computing Environments) for 46T

The Contractor shall implement the requirements of paragraph 3.2.2.4.1 for 46T.

3.2.2.4.1.2 Information Assurance Analyst Support (for Level I Computing Environments) for COPS

The Contractor shall implement the requirements of paragraph 3.2.2.4.1 for COPS.

3.2.2.4.1.3 Information Assurance Analyst Support (for Level I Computing Environments) for PDA

The Contractor shall implement the requirements of paragraph 3.2.2.4.1 for PDA.

3.2.2.4.1.4 Information Assurance Analyst Support (for Level I Computing Environments) for PDS

The Contractor shall implement the requirements of paragraph 3.2.2.4.1 for PDS.

3.2.2.4.1.5 Information Assurance Analyst Support (for Level I Computing Environments) for PDU

The Contractor shall implement the requirements of paragraph 3.2.2.4.1 for PDU.

3.2.2.4.1.6 Information Assurance Analyst Support (for Level I Computing Environments) for PDX

The Contractor shall implement the requirements of paragraph 3.2.2.4.1 for PDX.

3.2.2.4.1.7 Information Assurance Analyst Support (for Level I Computing Environments) for PDI

The Contractor shall implement the requirements of paragraph 3.2.2.4.1 for PDI.

3.2.2.4.2 Information Assurance Analyst, Senior, Support (for Level II Computing Environments)

The Contractor shall support Information Assurance Management (IAM) efforts. Level II IAM is defined in DOD 8570.01-M. The Contractor shall provide Level II IAM certified CSS personnel to support the following work.

a. Implement information assurance (IA) programs in accordance with DODI 8500.2 and ensure that IA related IS are functional and secure within the NE. IAM Level II serves as Information Assurance Officer (IAO) for multiple CEs or Network Environments (NEs).

b. Develop, implement, and enforce policies and procedures reflecting the legislative intent of applicable laws and regulations for the NE.

c. Prepare, distribute, and maintain plans, instructions, guidance, and standard operating procedures concerning the security of network system(s) operations.

d. Develop security requirements specific to an IT acquisition for inclusion in procurement documents.

e. Recommend resource allocations required to securely operate and maintain NE IA requirements.

f. Participate in an IS risk assessment during the C&A process.

g. Develop security requirements for hardware, software, and services acquisitions specific to multiple CEs or NE IA security programs.

h. Ensure that IA and IA enabled software, hardware, and firmware complies with appropriate NE security configuration guidelines, policies, and procedures.

i. Assist in the gathering and preservation of evidence used in the prosecution of computer crimes.

j. Ensure that NE IS recovery processes are monitored and that IA features and procedures are properly restored.

k. Review IA security plans for the NE.

l. Ensure that all IAM review items are tracked and reported.

m. Identify alternative functional IA security strategies to address NE security concerns.

n. Ensure that IA inspections, tests, and reviews are coordinated for the NE.

o. Review the selected security safeguards to determine that security concerns identified in the approved plan have been fully addressed.

p. Evaluate the presence and adequacy of security measures proposed or provided in response to requirements contained in acquisition documents.

q. Provide leadership and direction to NE personnel by ensuring that IA security awareness, basics, literacy, and training are provided to operations personnel commensurate with their responsibilities.

r. Develop and implement programs to ensure that systems, network, and data users are aware of, understand, and follow NE and IA policies and procedures.

s. Advise the IAM/DAA of any changes affecting the NE IA posture.

t. Conduct an NE physical security assessment and correct physical security weaknesses.

u. Ensure that compliance monitoring occurs, and review results of such monitoring across the NE.

3.2.2.4.2.1 Information Assurance Analyst, Senior, Support (for Level II Computing Environments) for 46T

The Contractor shall implement the requirements of paragraph 3.2.2.4.2 for 46T.

3.2.2.4.2.2 Information Assurance Analyst, Senior, Support (for Level II Computing Environments) for COPS

The Contractor shall implement the requirements of paragraph 3.2.2.4.2 for COPS.

3.2.2.4.2.3 Information Assurance Analyst, Senior, Support (for Level II Computing Environments) for PDA

The Contractor shall implement the requirements of paragraph 3.2.2.4.2 for PDA.

3.2.2.4.2.4 Information Assurance Analyst, Senior, Support (for Level II Computing Environments) for PDS

The Contractor shall implement the requirements of paragraph 3.2.2.4.2 for PDS.

3.2.2.4.2.5 Information Assurance Analyst, Senior, Support (for Level II Computing Environments) for PDU

The Contractor shall implement the requirements of paragraph 3.2.2.4.2 for PDU.

3.2.2.4.2.6 Information Assurance Analyst, Senior, Support (for Level II Computing Environments) for PDX

The Contractor shall implement the requirements of paragraph 3.2.2.4.2 for PDX.

3.2.2.4.2.7 Information Assurance Analyst, Senior, Support (for Level II Computing Environments) for PDI

The Contractor shall implement the requirements of paragraph 3.2.2.4.2 for PDI.

3.2.2.5 NAVAIR 5.0 Training Systems Programs Test Engineer Support

The Contractor shall support Test and Evaluation (T&E) via Test Engineer efforts. The Contractor shall provide CSS personnel to support in performing the following work:

a. Perform program/Program Management services in the form of planning, scheduling, and reporting in support of the test and evaluation of assigned projects in accordance with DODI 5000 series for defense acquisition program management.

b. Provide test program/project support such as scheduling events, program planning, cost, schedule, and performance coordination.

c. Support development and review of technical requirements of test planning and reporting efforts. This shall include consideration of test processes and objectives, data acquisition, data reduction and analysis, along with test documentation/test resource requirements development.

d. Generate and produce presentation materials including viewgraphs and other briefing materials to support test program/project requirements using appropriate templates as defined by NAVAIR.

e. Provide support to include efforts related to system integration, specification/ requirements definition, Test and Evaluation Master Plan (TEMP) development/revisions, technical reviews/team meetings, and technology insertion based on Navy defense acquisition instructions, policies and procedures.

f. Provide test risk assessments and cost analysis to evaluate implementation and affordability.

g. Provide support for T&E planning, managing, and work efforts of the T&E Working Integrated Product Team (WIPT) members.

h. Recommend resources and equipment/materials to support program/project testing.

i. Evaluate test plans to determine the validity of proposed procedures.

j. Provide engineering and technical services during pretest, test, and post-test activities.

k. Prepare test reports and maintain documentation such as deficiency reports.

l. Develop and write test procedures, plans, flight cards, and detailed reports.

m. Identify data parameters, instrumentation requirements, perform analysis and conduct system evaluation.

n. Coordinate and support the execution of local and off-site test activities with DOD test sites and other entities including independent evaluators.

3.2.2.5.1 Test Engineer Support for 46T

The Contractor shall implement the requirements of paragraph 3.2.2.5 for 46T.

3.2.2.5.2 Test Engineer Support for COPS

The Contractor shall implement the requirements of paragraph 3.2.2.5 for COPS.

3.2.2.5.3 Test Engineer Support for PDA

The Contractor shall implement the requirements of paragraph 3.2.2.5 for PDA.

3.2.2.5.4 Test Engineer Support for PDS

The Contractor shall implement the requirements of paragraph 3.2.2.5 for PDS.

3.2.2.5.5 Test Engineer Support for PDU

The Contractor shall implement the requirements of paragraph 3.2.2.5 for PDU.

3.2.2.5.6 Test Engineer Support for PDX

The Contractor shall implement the requirements of paragraph 3.2.2.5 for PDX.

3.2.2.5.7 Test Engineer Support for PDI

The Contractor shall implement the requirements of paragraph 3.2.2.5 for PDI.

3.2.2.5.7.1

APPENDIX A: LABOR CATEGORY, SOW PARAGRAPH, AND APPENDIX B CROSS REFERENCE

Labor Category	SOW Para.	App. B
Integrated Logistics Support (Acquisition Logistics Manager)	3.2.2.1.1	B.1.1
Facilities Engineer (Engineer/Scientist III)	3.2.2.1.2	B.1.2
Technical Writer III	3.2.2.1.3	B.1.3
Support Equipment Specialist	3.2.2.1.4	B.1.4
Program Manager, Senior	3.2.2.2	B.2.1
Assistant Program Manager (Project Support Specialist)	3.2.2.2	B.2.2
Systems Engineer, Senior	3.2.2.3.1	B.3.1.1
Systems Engineer	3.2.2.3.1	B.3.1.2
Software Engineer, Senior	3.2.2.3.2	B.3.2.1
Software Engineer (Engineer/Scientist IV)	3.2.2.3.2	B.3.2.2
Senior Computer Programmer IV	3.2.2.3.3	B.3.2.3
Computer Programmer II	3.2.2.3.3	B.3.2.4
Configuration Management Analyst	3.2.2.3.4	B.3.3
Network & Computer Sys Admin Level I Computing Environment (Systems Administrator, Junior)	3.2.2.3.5.1	B.3.4.1
Network & Computer Sys Admin Level II Computing Environment (Systems Administrator, Senior)	3.2.2.3.5.2	B.3.4.2
Network and Computer Sys Eng Level I Computing Environment (Network Engineer)	3.2.2.3.5.3	B.3.4.3
Network and Computer Sys Eng Level II Computing Environment (Network Engineer), Senior	3.2.2.3.5.4	B.3.4.4
Engineering Technician I	3.2.2.3.5.5	B.3.4.5
Modeling and Simulation (Operations Research Analyst)	3.2.2.3.5.6	B.3.5.1
Senior Visual System Acquistion Engineer (Engineer/Scientist IV)	3.2.2.3.5.7	B.3.5.2
Visual System Acquistion Engineer (Engineer/Scientist II)	3.2.2.3.5.7	B.3.5.3
Synthetic Natural Environment (Operations Research Analyst)	3.2.2.3.5.8	B.3.5.4
Senior Aerospace Simulation Engineer (Engineer/Scientist V)	3.2.2.3.5.9	B.3.5.5
Flight Simulation Tactical Environment Expert (Engineer/Scientist V)	3.2.2.3.5.9	B.3.5.6
Aircrew Training Devices Instructor (Pilot)	3.2.2.3.5.10	B.3.5.7
Master Interoperability Engineer (Engineer/Scientist IV)	3.2.2.3.5.11	B.3.5.8
Interoperability Engineer (Engineer/Scientist II)	3.2.2.3.5.12	B.3.5.9
Systems Analyst	3.2.2.3.5.13	B.3.6.1
Computer/Electronics Engineer (Engineer/Scientist II)	3.2.2.3.5.14	B.3.7.1
Senior Research Psychologist (SME I)	3.2.2.3.6	B.3.8.1
Research Psychologist (SME I)	3.2.2.3.6	B.3.8.2
Research Psychologist Assistant (SME I)	3.2.2.3.6	B.3.8.3
Instructional Systems Designer (Training Spec II)/Senior Instructional Systems Designer (Training Spec III)	3.2.2.3.7.1	B.3.9.1
Instructional Systems Administrator (Technical Writer I)	3.2.2.3.7.2	B.3.9.2
Industrial/Organizational Psychologist (SME I)	3.2.2.3.7.3	B.3.10
Training Specialist/Subject Matter Expert (Training Specialist II)	3.2.2.3.7.4	B.3.11
Training Analyst (Training Specialist II)	3.2.2.3.7.5	B.3.12
Graphic Artist	3.2.2.3.7.6	B.3.13
Web Developer (Computer Programmer III)	3.2.2.3.7.7	B.3.14.1
Web Developer (Computer Programmer IV)	3.2.2.3.7.7	B.3.14.2
Quality Assurance (QA) (Engineer/Scientist IV)	3.2.2.3.8	B.3.15
Information Assurance Analyst	3.2.2.4.1	B.4.1
Information Assurance Analyst, Senior	3.2.2.4.2	B.4.2
Test Engineer	3.2.2.5	B.5

APPENDIX B Labor Categories, Education and Experience

B.1 Logistics Support

B.1.1 Integrated Logistics Support (Acquisition Logistics Manager)

The Integrated Logistics Support Manager (also known as Acquisition Logistics Manager) shall possess the education and experience as follows:

a. EDUCATION – Formal post-secondary education is not required, however, a degree in a logistics, business, management, or technical field, from an accredited program is preferred.

b. EXPERIENCE

(1) Demonstrated knowledge of and experience with acquisition policies and procedures including budget formulation and execution of policies and procedures sufficient to acquire and manage the logistic program for assigned training systems.

(2) Demonstrated knowledge, skill and experience in the application of logistics support management principles, concepts, and methodology in a variety of difficult and complex logistic projects.

(3) Mastery of theory, concepts, principals, practices, and all aspects of logistics elements and the management of those elements.

(4) Minimum 4 Years of Experience as a logistics manager, with 2 of these years as a logistics manager for Navy programs.

(5) Have significant knowledge of and experience with Government contract and procurement procedures including new contract actions, contract modifications, related processes and products to ensure all life-cycle support requirements are satisfied.

(6) Possess the ability to coordinate and integrate the work activities of several different projects at any one time.

(7) Possess the ability to communicate with others effectively both orally and in writing in working out solutions to problems or questions relating to the Logistics program.

B.1.2 Facility Engineer (Engineer/Scientist III)

The facilities engineer shall possess the education and experience as follows:

a. EDUCATION – Bachelor of Science (B.S.) degree in Engineering from an accredited program in Civil/Structural Engineering, Mechanical Engineering, or Electrical Engineering.

b. EXPERIENCE

(1) At least four years of experience related to facility acquisitions, training system acquisitions, and engineering associated with training systems.

(2) Demonstrated experience indicating data collection and analysis of facility related infrastructure systems (Heating, Ventilation, and Air Conditioning (HVAC), power,


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space, lighting, communications, security, fire suppression, Unified Facility Criteria, National and International Building Codes, and engineering drawing development).

(3) Desired - At least five (5) years of acquisition experience, with three (3) years in a DOD program directly supporting Training and/or Training Systems Acquisition.

(4) Must have a broad knowledge of support engineering functions such as reliability, maintainability, EMI, logistics, program funding, statistics, facilities, cost estimating, risk analysis/assessment, failure analysis, other engineering disciplines, and security and fire alarm systems is required.

(5) Must possess basic knowledge of military equipment, systems, and associated tactics (U.S., allied, and threat nations) is required.

(6) Must be knowledgeable of a wide range of non-engineering, non-scientific information in the form of Federal Acquisition Regulations, Military Standards, Department of the Navy (DON)/DOD/NAVAIR policies, directives, and instructions, National and International Building Codes including Electrical and Mechanical Codes, and must be able to determine the applicability of these documents to assignments.

(7) Must be able to coordinate and work with a diverse variety of professional personnel associated with the assigned duties.

(8) Must be able to communicate effectively and professionally both orally and in writing.

(9) Must be able to conduct necessary business with NAWCTSD's product users, sponsors, Fleet representatives, and travel worldwide.

(10) Develop documentation and conduct activities to support facilities planning and modification to include budget projections, review of contracts, monitor Contractor execution and recommend acceptance of facilities support infrastructure modifications and construction.

(11) Comprehensive Platform Training System Support, to include development of facility infrastructure requirements to support installation of new and integrated training systems.

(12) Conduct facilities project planning and design, cost estimation, and budgetary programming/planning and funds management processes.

(13) Conduct gap analysis to support modification of/ or installation and integration of new equipment and/or training devices into existing or new locations.

B.1.3 Technical Writer III

a. EDUCATION – Minimum Bachelor of Arts (B.A.) or B.S. degree from an accredited program OR two year technology degree with 4 Years of Experience in preparing technical manuals.

b. EXPERIENCE

(1) Detailed knowledge of Government and industry specifications and standards applicable to style, format, media, delivery, or host systems and technical content requirements in the development of operation and maintenance documentation for training devices.

(2) Ability to recognize the basic components of a complex training device simulating a major weapon system and understanding how various equipment interfaces in order to select the proper specifications and develop a Technical Manual Contract Requirements (TMCR) document that best meets the needs of a particular acquisition.

(3) In-depth knowledge of engineering practices and principles, as they are applied to operational and maintenance documentation. Has the capability to ascertain if the operation and maintenance documentation developed for a training device has depth of coverage, continuity and flow that would permit maintenance the level of repair required by the assigned maintenance concept.

(4) Working knowledge of logistics principles and practices relative to the development and evaluation of operation and maintenance documentation IAW contractually cited specifications and standards.

(5) Expertise to develop all elements of a procurement package encompassing streamlining principles, allowing for the most efficient and cost effective acquisition of the operation and maintenance documentation.

(6) Knowledge of cost estimating techniques and procedures for the new and/or update operation and maintenance documentation.

(7) Experienced in using on the state-of-the-art advances in desktop publishing systems, Computer Aided Design (CAD), Computer-aided Acquisition Logistic Support (CALS), Extensible Markup Language (XML), Hypermedia, digital authoring systems, and other developments relative to paperless mediums.

(8) Proficient in MS Office Applications, such as Word and Excel

(9) Two (2) years of relevant expertise can be substituted for one (1) year of college experience.

B.1.4 Support Equipment Specialist

The ES shall possess the education and experience as follows:

a. EDUCATION – Formal post-secondary education is not required, however, a degree in a logistics, Supply Chain, business, management, or technical field, from an accredited program is preferred.

b. EXPERIENCE

(1) Demonstrated, significant knowledge, skill and experience in the application of Support Equipment Services management principles, concepts, and methodology of training systems operation and maintenance for sustainment.

(2) Knowledge of and experience with acquisition policies and procedures including budget formulation and execution of policies and procedures sufficient to manage the Support Equipment Services logistics program for assigned training systems.

(3) Minimum 5 Years of Experience as a logistics ES of in logistics management.

(4) Mastery of advanced logistics knowledge of theory, concepts, principals, practices, and all aspects of Support Equipment Services requirements as they relate to the support of initial and fielded training systems. Including an expert knowledge in Diminishing Manufacturing Sources and Material Shortages (DMSMS)/Obsolescence and Logistics Testing and Evaluation of training systems.

(5) Have significant knowledge of and experience with government contract and procurement procedures including new contract actions, contract modifications, related processes and products to ensure all support requirements are satisfied.

(6) Possess the ability to coordinate and integrate the work activities of several different projects at any one time.

(7) Possess the ability to communicate with others effectively both orally and in writing in working out solutions to problems or questions relating to the Supply Support.

B.2 **Program Manager Support**

B.2.1 Program Manager, Senior

a. EDUCATION – Meet one of the following criteria:

(1) At least twenty four (24) semester hours from among accounting, business finance, law, contracts, purchasing, economics, industrial management, marketing, quantitative methods, and organization and management (DANTES or CLEP equivalency exams may be substituted.), or,

(2) At least twenty four (24) semester hours in Program Management and twelve (12) semester credit hours from among accounting, business finance, law, contracts, purchasing, economics, industrial management, marketing, quantitative methods, and organization and management, or,

(3) Baccalaureate degree, preferably with a major in engineering, systems management, or business, or, Master's degree, preferably with a major in engineering, systems management, business administration, or a related field administration, or,

(4) Additional Training (Defense Acquisition University (DAU) and other)

(a) DAU ACQ 101 Fundamentals of Systems Acquisition Management or Equivalent Training

(b) DAU ACQ 201 (Parts A & B) Intermediate Systems Acquisition or Equivalent Training

(c) Desired - One DAU Level 100 course in another functional area or Equivalent Training

(d) DAU ACQ 201 (Parts A & B) Intermediate Systems Acquisition or Equivalent Training

(e) DAU PMT 250 Program Management Tools or Equivalent Training

(f) Desired - One DAU Level 200 course in another functional area or Equivalent Training

(g) Desired - Intermediate-level management and leadership training or Equivalent Training

b. EXPERIENCE

(1) Required - Two (2) years of acquisition experience; at least 1 year of this experience must be in program management

(2) Desired - An additional two (2) years of acquisition experience, preferably in a systems program office or similar organization

B.2.2 Assistant Program Manager (Project Support Specialist)

a. EDUCATION - Meet one of the following criteria:

(1) At least 24 semester hours from among accounting, business finance, law, contracts, purchasing, economics, industrial management, marketing, quantitative methods, and organization and management (DANTES or CLEP equivalency exams may be substituted.), or,

(2) At least 24 semester hours in Program Management and 12 semester credit hours from among accounting, business finance, law, contracts, purchasing, economics, industrial management, marketing, quantitative methods, and organization and management, or,

(3) Baccalaureate degree, preferably with a major in engineering, systems management, or business, or, Master's degree, preferably with a major in engineering, systems management, business administration, or a related field administration, or,

(4) Additional training:

(a) DAU ACQ 101 Fundamentals of Systems Acquisition Management or Equivalent Training

(b) DAU ACQ 201 (Parts A & B) Intermediate Systems Acquisition or Equivalent Training

(c) Desired - One DAU Level 100 course in another functional area or Equivalent Training

(d) DAU ACQ 201 (Parts A & B) Intermediate Systems Acquisition or Equivalent Training

(e) DAU PMT 250 Program Management Tools or Equivalent Training

(f) (Desired) One DAU Level 200 course in another functional area or Equivalent Training

(g) Desired - Intermediate-level management and leadership training or Equivalent Training

b. EXPERIENCE

(1) Required - One (1) year of acquisition experience

(2) Desired - Two (2) years of acquisition experience with at least one (1) year experience in Program Management

B.3 **Engineering Support**

B.3.1 Systems Engineering

B.3.1.1 Systems Engineer, Senior

a. EDUCATION – B.S. in Electronics, Computer, Mechanical, Aerospace, Electrical, Industrial engineering, or equivalent.

b. EXPERIENCE

(1) Required - At least ten (10) years of practical experience in systems engineering associated with modeling and simulation within the training and training systems domains.

(2) Desired - At least five (5) years of acquisition experience, with three (3) years in a DOD program directly supporting Training and/or Training Systems Acquisition.

(3) Must have a broad knowledge of support engineering functions such as reliability, maintainability, EMI, logistics, program funding, statistics, facilities, cost estimating, risk analysis/assessment, and human factors.

(4) Must possess basic but broad knowledge of current and future military equipment, systems, and associated tactics (U.S., allied, and threat nations).

(5) Must be knowledgeable of a wide range of non-engineering, non-scientific information in the form of Federal Acquisition Regulations, Military Standards, Department of the Navy (DON)/DOD/NAVAIR policies, directives, and instructions and must be able to determine the applicability of these documents to assignments.

(6) Must be able to coordinate and work with a variety of professional personnel associated with the assigned duties.

(7) Must be able to conduct necessary business with NAVAIR Orlando TSD's product user activities and sponsors.

B.3.1.2 Systems Engineer

a. EDUCATION – B.S. in Electronics, Computer, Mechanical, Aerospace, Electrical, Industrial engineering, or equivalent.

c. EXPERIENCE

(1) Required - At least five (5) years of practical experience in systems engineering associated with modeling and simulation within the training and training systems domains.

(2) Desired - At least three (3) years of acquisition experience, with two (2) years in a DOD program directly supporting Training and/or Training Systems Acquisition.

(3) Must have some knowledge of support engineering functions such as reliability, maintainability, EMI, logistics, program funding, statistics, facilities, cost estimating, risk analysis/assessment, and human factors.

(4) Must possess basic knowledge of current and future military equipment, systems, and associated tactics (U.S., allied, and threat nations).

(5) Must be knowledgeable of a wide range of non-engineering, non-scientific information in the form of Federal Acquisition Regulations, Military Standards, Department of the Navy (DON)/DOD/NAVAIR policies, directives, and instructions and must be able to determine the applicability of these documents to assignments.

(6) Must be able to coordinate and work with a variety of professional personnel associated with the assigned duties.

(7) Must be able to conduct necessary business with NAVAIR Orlando TSD's product user activities and sponsors.

B.3.2 Software Engineering

B.3.2.1 Software Engineer, Senior

a. EDUCATION

(1) Required – B.S. in electrical or computer engineering, or equivalent.

(2) Desired – Twenty-four (24) credit hours (or equivalent) coursework specializing in computer hardware and software (e.g. software design and engineering, system architecture, data structures, networks, operating systems, digital design and real-time systems).

b. EXPERIENCE

(1) Required – Minimum ten (10) years of practical experience in software systems engineering associated with modeling and simulation within the training and training systems domains.

(2) Desired – Minimum five (5) years of U.S. Government acquisition experience, with three (3) years in a DOD program directly supporting Training and/or Training Systems Acquisition.

(3) A broad knowledge of software engineering functions such as, requirement analysis and definition, configuration management, quality assurance, unit and system level testing, reliability and maintainability, cost estimating, risk analysis/assessment, and human factors is required.

(4) Must have a broad working knowledge of current and emerging software development methodologies, processes, and life-cycle models, (e.g. Capability Maturity Model (CMM), CMM Integration (CMMI), IEEE-12207, Waterfall, and Spiral).

(5) Must have broad experience with software development conducted IAW IEEE-12207.

(6) Must have experience defining, implementing, collecting, and analyzing software related metrics.

(7) Must possess basic but broad knowledge of current and developing military equipment and systems.

(8) Must know a wide range of non-engineering, non-scientific information in the form of Federal Acquisition Regulations, Military Standards, DOD/DON/NAVAIR policies, directives, and instructions and must know the application of these documents to assignments.

(9) Must have broad and detailed working knowledge of software and technical Military and Commercial Standards (e.g. MIL-STD, DOD-STD, IEEE, ISO, and ANSI).

B.3.2.2 Software Engineering Support (Engineer/Scientist IV)

a. EDUCATION

(1) Required – B.S. in electrical or computer engineering, or equivalent.

(2) Desired – Twelve (12) credit hours (or equivalent) coursework specializing in computer hardware and software (e.g. software design and engineering, system architecture, data structures, networks, operating systems, digital design and real-time systems).

b. EXPERIENCE

(1) Required - Minimum five (5) years of practical experience in software systems engineering associated with modeling and simulation within the training and training systems domains.

(2) Desired – At least two (2) years of US Government acquisition experience, with one (1) year in a DOD program directly supporting Training and/or Training Systems Acquisition.

(3) Knowledge of software engineering functions such as, requirement analysis and definition, configuration management, quality assurance, unit and system level testing, reliability and maintainability, cost estimating, risk analysis/assessment, and human factors is required.

(4) Must have a working knowledge of current and emerging software development methodologies, processes, and life-cycle models, (e.g. CMM, CMMI, IEEE-12207, Waterfall, and Spiral).

(5) Must have experience working within an Integrated Product Team structure.

(6) Must have experience with software development conducted IAW IEEE-12207.

(7) Must have experience defining, implementing, collecting, and analyzing software related metrics.

(8) Must possess basic knowledge of current and developing military equipment and systems.

(9) Must know a wide range of non-engineering, non-scientific information in the form of Federal Acquisition Regulations, Military Standards, DOD/DON/NAVAIR policies, directives, and instructions and must know the -applicability of these documents to assignments.

(10) Must have working knowledge of software and technical Military and Commercial Standards (e.g. MIL-STD, DOD-STD, IEEE, ISO, and ANSI).

B.3.2.3 Senior Computer Programmer IV

a. EDUCATION

Post-graduate engineer with an advanced degree from an accredited institution in electronics, computer engineering, computer science, M&S, or demonstrate equivalent performance.

b. EXPERIENCE

(1) Required - At least seven (7) years of practical experience in software development associated with modeling and simulation within the training and training systems domains

(2) Programming languages will include Assembly, C, C++, Microsoft .Net (C#, Visual Basic (VB)), and Java. Operating Systems will include Microsoft Windows, as well as various UNIX flavors, such as Linux.

(3) Experienced using scripting languages (JavaScript, VBScript, Python, Logical Unit Application (LUA), etc.), object-oriented programming, eXtensible Markup Language (XML), Active Server Page(s) (ASP), ASP.Net, and Hyper Text Markup Language (HTML).

(4) Experience with software development and diagnostic tools.

(5) Knowledge of engineering principles and theory, and have wide ranging state-of-the-art knowledge or experience in a multitude of engineering and scientific disciplines including simulation modeling, Distributed Interactive Simulation (DIS) and High Level Architecture (HLA).

(6) Knowledge of and experience in software engineering principles and development, especially in complex systems design. Experience and education directly related to scientific programming applications, including math model development is necessary to support the research of emerging technologies.

(7) Formal training in Modeling and Simulation techniques desired, but not required.

(8) Knowledge in a wide range of non-engineering, non-scientific information in the form of Federal Acquisition Regulations, Military Standards, DOD/DON/NAVAIR policies, directives, and instructions and knowledge in the application of these documents to assignments.

B.3.2.4 Computer Programmer II

a. EDUCATION – B.S. in electronics or computer engineering, computer science, or equivalent.

b. EXPERIENCE

(1) Required - At least three (3) years of practical experience in software development associated with modeling and simulation within the training and training systems domains

(2) Experience in authoring programming languages that include Assembly, C, C++, Microsoft .Net (C#, VB), and Java. Operating Systems will include Microsoft Windows, as well as various UNIX flavors, such as Linux.

(3) Experienced in authoring scripting languages (JavaScript, VB Script, and Python. LUA, etc.), object-oriented programming, XML, ASP, ASP.Net and HTML.

(4) Experienced in using software development and diagnostic tools on the supported NAWCTSD program.

(5) Formal training in M&S techniques desired but not required.

(6) Knowledge in a wide range of non-engineering, non-scientific information in the form of Federal Acquisition Regulations, Military Standards, DOD/DON/NAVAIR policies, directives, and instructions and knowledge in the application of these documents to assignments.

(7) Knowledge of and experience in software engineering principles and development, especially in complex systems design. Experience and education directly related to scientific programming applications, including math model development, is necessary to support the research of emerging technologies.

B.3.3 Configuration Management Analyst

a. EDUCATION - B.S. in engineering, computer science, mathematics or Business Administration or B.A. in Management Information Sciences or equivalent experience

b. EXPERIENCE

(1) At least 5 years of Configuration Management (CM) experience.

(2) Experience establishing and controlling the CM Audits, CM Library, Configuration Items (CIs), and baselines.

(3) Complete understanding of Configuration Management Guidance in MIL-HDBK-61B and National Consensus Standard for Configuration Management in ANSI/EIA-649B.

(4) Skill to perform scripting (JavaScript, VB Script, Python, LUA, etc.) as needed for software builds.

(5) Experience with multiple configuration management tools to include ClearCase, subversion, ClearQuest, JIRA, Razor, Accurev etc.

(6) Proficient in MS Office Applications, such as Word.

(7) Experience implementing and maintaining CMMI Level 3 and above.

(8) Knowledge of ISO 9000 standards

B.3.4 Network and Computer Systems

B.3.4.1 Network and Computer Systems Admin Level I Computing Environment (System Administrator, Junior)

a. EDUCATION – AA/AS computer science, Information System Management or IA technology field.

b. EXPERIENCE

(1) 0-3 years of experience as a network and computer systems administrator.

(2) Experience implementing operating systems and network devices security configuration in accordance with Defense Information Systems Agency (DISA) approved Security Technical Implementation Guides.

(3) Skill to perform penetration tests and vulnerability assessments using EyeRetina vulnerability scanner, Defense Information Systems Agency (DISA) Gold Disk, the Security Content Automation Protocol (SCAP) Compliance Checker and Security Readiness Review (SRR) scripts.
(4) Experience correcting flaws and implementing technical controls in the hardware or software installed within a computing environment.
(5) Skill to manage DoD Host-Based-Security Systems (HBSS)
(6) Have working knowledge of the DOD Information Assurance Vulnerability Management Program (IAVMP)
(7) Possess DOD Approved Baseline Certification as Information Assurance Technical Level I in accordance with DOD 8570.01-M. (i.e. A+CE, Network+CE, SSCP & Vendor certification or IT Training Provider certificate for computing environment main operating system.)

B.3.4.2 Network and Computer Systems Admin Level II Computing Environment (System Administrator, Senior)

a. EDUCATION – B.S. computer science, Information System Management or IA technology field.
b. EXPERIENCE
(1) 3-5 years of experience as a network and computer systems administrator.
(2) Experience implementing operating systems and network devices security configuration in accordance with Defense Information Systems Agency (DISA) approved Security Technical Implementation Guides.
(3) Experience in administering boundary devices (i.e. managed switches, proxy servers, routers, firewalls and intrusion detection systems)
(4) Skill to perform penetration tests and vulnerability assessments using EyeRetina vulnerability scanner, Defense Information Systems Agency (DISA) Gold Disk, the Security Content Automation Protocol (SCAP) Compliance Checker and Security Readiness Review (SRR) scripts.
(5) Experience correcting flaws and implementing technical controls in the hardware or software installed within a network environment.
(6) Skill to manage DoD Host-Based-Security Systems (HBSS)
(7) Have working knowledge of the DOD Information Assurance Vulnerability Management Program (IAVMP)
(8) Possess DOD Approved Baseline Certification as Information Assurance Technical Level II in accordance with DOD 8570.01-M. (i.e. GSEC, Security+CE, SSCP & Vendor certification or IT Training Provider certificate for network environment main operating system.)

B.3.4.3 Network and Computer Systems Admin Level I Computing Environment (Network Engineer)

a. EDUCATION – B.S computer science, Information System Management or IA technology field.
b. EXPERIENCE
(1) 1-5 years of experience as a network and computer systems administrator.

(2) Experience implementing operating systems and network devices security configuration in accordance with Defense Information Systems Agency (DISA) approved Security Technical Implementation Guides.
(3) Skill to perform penetration tests and vulnerability assessments using EyeRetina vulnerability scanner, Defense Information Systems Agency (DISA) Gold Disk, the Security Content Automation Protocol (SCAP) Compliance Checker and Security Readiness Review (SRR) scripts.
(4) Experience correcting flaws and implementing technical controls in the hardware or software installed within a computing environment.
(5) Skill to manage DoD Host-Based-Security Systems (HBSS)
(6) Have working knowledge of the DOD Information Assurance Vulnerability Management Program (IAVMP)
(7) Possess DOD Approved Baseline Certification as Information Assurance Technical Level I in accordance with DOD 8570.01-M. (i.e. A+CE, Network+CE, SSCP & Vendor certification or IT Training Provider certificate for computing environment main operating system.)

B.3.4.4 Network and Computer Systems Admin Level II Computing Environment (Network Engineer, Senior)

a. EDUCATION – B.S. computer science, Information System Management or IA technology field.
b. EXPERIENCE
(1) 5 years or more of experience as a network and computer systems administrator.
(2) Experience implementing operating systems and network devices security configuration in accordance with Defense Information Systems Agency (DISA) approved Security Technical Implementation Guides.
(3) Experience in administering boundary devices (i.e. managed switches, proxy servers, routers, firewalls and intrusion detection systems)
(4) Skill to perform penetration tests and vulnerability assessments using EyeRetina vulnerability scanner, Defense Information Systems Agency (DISA) Gold Disk, the Security Content Automation Protocol (SCAP) Compliance Checker and Security Readiness Review (SRR) scripts.
(5) Experience correcting flaws and implementing technical controls in the hardware or software installed within a network environment.
(6) Skill to manage DoD Host-Based-Security Systems (HBSS)
(7) Have working knowledge of the DOD Information Assurance Vulnerability Management Program (IAVMP)
(8) Possess DOD Approved Baseline Certification as Information Assurance Technical Level II in accordance with DOD 8570.01-M. (i.e. GSEC, Security+CE, SSCP & Vendor certification or IT Training Provider certificate for network environment main operating system.)

B.3.4.5 Engineering Technician I

a. EDUCATION – Enrolled in an accredited educational institution and pursuing bachelor's degree in a technical field where there is an emphasis on computer technology.

b. EXPERIENCE

(1) Knowledge of current information technologies needed for collecting, analyzing, and reporting.

(2) Knowledge of non-peripheral computer hardware components and their functions.

(3) Understands and can interpret software written in at least one high level programming language.

B.3.5 Modeling and Simulation Support

B.3.5.1 Modeling and Simulation (Operations Research Analyst)

a. EDUCATION – B.S. in electronics engineering, computer engineering, computer science, or equivalent.

b. EXPERIENCE

(1) A minimum of five (5) years of experience in the development of computer based simulations where models were understood and developed.
(2) Has experience in trade-off analyses to determine the adequacy of models used in simulations.
(3) Knowledge of weapon and environmental servers and how they are used.
(4) Knowledge of semi-automated forces.
(5) Knowledge of virtual battle spaces consisting of live, virtual and constructive entities.
(6) Knowledge of verification and validation processes.
(7) Knowledge of distributed training systems and protocols utilized.
(8) Knowledge of emissions and radar systems in a distributed training environment
(9) Knowledge of acoustic sensors, arrays, biologics, and sonars in a distributed training environment
(10) Knowledge of tactical datalink and frequency hopping in a distributed training environment, to include Link-11, Link-16, TADIL-J, SISO-J
(11) Knowledge of visual systems.
(12) Experience in math modeling.
(13) Proficient in at least one high order programming language.
(14) Has experience developing software in both Microsoft Windows and Linux operating systems.
(15) Has experience with software development, configuration management, and diagnostic tools.
(16) Knowledge of, and experience in, software engineering processes.

B.3.5.2 Senior Visual System Acquisition Engineer (Engineer/Scientist IV)

a. EDUCATION – B.S. or higher degree in engineering, engineering technology, physics, electro-optics, mathematics, or computer science, and have at least six (6) years of applied visual/sensor systems engineering with simulation and training systems. Four years of additional applied visual/sensor system experience may be substituted for the formal degree requirement.

b. EXPERIENCE

(1) Must possess broad and established experience with geographic information systems and the use of mapping, charting, geodesy, and imagery source data;

(2) Must possess broad and established experience in synthetic environment generation, including terrain and model development in a variety of formats and tool sets for visual/sensor simulation;

(3) Must possess broad and established practical experience in methods of real-time visual and sensor scene generation which support unprogrammed motion of the simulation viewpoint throughout a complex and often highly detailed three-dimensional simulated visual/sensor environment;

(4) Must possess broad and established experience in the application of display system technologies and methods of effectively integrating these into visual display systems suitable for training and simulation under normal and both simulated and stimulated sensor conditions; experience must include:

i. The full range of flat panel and cathode ray tube display technologies;

ii. A wide range of video projection technologies applicable to simulation systems;

iii. A wide range of relevant simulation display system technologies including real and virtual image systems, beamsplitters, projection optics, image collimation, screen technologies, head mounted displays, automatic tracking systems, and auto-alignment systems;

iv. A broad and established understanding of current sensor technologies including infrared, image intensification, television, and radar, and how those technologies are simulated/stimulated and correlated into simulation systems;

v. A broad and established experience in military training systems and general training simulation technology;

vi. And a broad understanding of the defense procurement process.

B.3.5.3 Visual System Acquisition Engineer (Engineer/Scientist II)

a. EDUCATION – B.S. or higher degree in engineering, engineering technology, physics, electro-optics, mathematics, or computer science, and have at least three (3) years of applied visual/sensor systems engineering with simulation and training systems. Four (4) years of additional applied visual/sensor system experience may be substituted for the formal degree requirement.

b. EXPERIENCE

(1) Must possess established experience with geographic information systems and the use of mapping, charting, geodesy, and imagery source data;

(2) Must possess established experience in synthetic environment generation, including terrain and model development in a variety of formats and tool sets for visual/sensor simulation;

(3) Must possess established, practical experience in methods of real-time visual and sensor scene generation, which support unprogrammed motion of the simulation viewpoint throughout a complex and often highly detailed three-dimensional simulated visual/sensor environment;

(4) Must possess established experience in the application of display system technologies and methods of effectively integrating these into visual display systems suitable for training and simulation under normal and both simulated and stimulated sensor conditions; experience must include:

(a) Flat panel and cathode ray tube display technologies,

(b) Video projection technologies applicable to simulation systems, and

(c) Relevant simulation display system technologies such as real and virtual image systems, beam splitters, projection optics, image collimation, screen technologies, head mounted displays, automatic tracking systems, and auto-alignment systems;

(5) Must possess an established understanding of sensor technologies such as infrared, image intensification, television, and radar and practical experience in how those technologies are simulated/stimulated and correlated into simulation systems.

(6) Must possess experience in military training systems and general training simulation technology;

(7) Must possess an understanding of the defense procurement process;

B.3.5.4 Synthetic Natural Environment (Operations Research Analyst)

a. EDUCATION - Must have a Bachelor's or higher degree in engineering, engineering technology, physics, electro-optics, mathematics, or computer science, and have at least four (4) years of applied experience in SNE generation for simulation and training systems. Four (4) years of additional applied SNE generation experience may be substituted for the formal degree requirement.

b. EXPERIENCE

(1) Must possess established experience with geographic information systems and the use of mapping, charting, geodesy, and imagery source data;

(2) Must possess established, practical experience in synthetic environment generation, including terrain and model development in a variety of formats and experience using a variety of tool sets for visual/sensor simulation;

(3) Must possess established experience with the issues associated with the development of correlated synthetic natural environments for visual, sensor and computer generated forces;

(4) Must possess an established understanding of effect the SNE generation process has on the performance of the targeted real-time visual/sensor scene generation system, and practical experience in the development of environments which take full advantage of the real-time systems' capabilities without overwhelming its processing capacity;

(5) Must possess experience in military training systems and general training simulation technology;

(6) Must possess an understanding of the defense procurement process.

B.3.5.5 Senior Aerospace Simulation Engineer (Engineer/Scientist V)

a. EDUCATION - Post-graduate engineer with a M.S. degree or higher in aerospace engineering or equivalent with specialized training in aircraft stability and control, control theory, aerodynamics, and flight test methodology.

b. EXPERIENCE

(1) A minimum of fifteen (15) years engineering experience in aerospace sciences pertaining to modeling and simulation engineering during which a high level of technical competency and highly developed judgment has been demonstrated.

(2) Extensive additional education and/or experience indicative of in-depth knowledge and expertise in the area of training systems and related hardware/software related to both fixed and rotary wing aircraft.

(3) Has experience of peripheral flight system disciplines relevant to training system development, particularly vehicle propulsion, mechanical design, and human factors engineering as related to man-machine interactions including displays, cockpit design and layout, and human perception and reaction to motion as pertaining to pilot cueing and control.

(4) Extensive experience in all aspects of flight simulation modeling, data acquisition and utilization, and testing for a broad range of military training systems, especially in support of systems acquisitions.

(5) Experience in applying the knowledge of human perception to the design of flight simulation systems to support training in a wide variety of military tasks.

(6) Experience in organizing information for effective use by engineers and other technical professionals.

(7) Familiar with software development.

(8) Possess knowledge of a wide range of non-engineering, non-scientific information in the form of Federal Acquisition Regulations, Military Standards, DOD/DON/NAVAIR policies, directives, and instructions and possess knowledge in the application of these documents to assignments.

(9) Knowledge of advanced methods of flight simulation implementation and validation adequate to solve new and previously unsolved problems which are unusually difficult and which do not yield to standard accepted methods.

(10) Knowledge of aerodynamics, flight dynamics, kinematics, physics, real-time flight simulation methods, real-time computing hardware and software, flight test methods and technologies, control system design, aircraft flying qualities and testing, aircraft piloting skills and techniques, military roles and missions, military training systems and training methods.

(11) Skill in translating flight simulation training requirements to perceptual requirements and in turn to flight simulation system characteristics.

(12) Specific knowledge and experience in the areas of servo control, digital computers, human physiology and human factors, as each would apply to flight simulation.

(13) Perform engineering analysis of relationships between flight simulation, cockpit motion simulation, visual simulation and other simulation areas to establish critical performance parameters for all elements of the system affecting integration of the system, especially in areas for which no technical guidelines exist.

(14) Knowledge of military vehicle and weapon system operator training procedures, techniques and requirements.

(15) Skill in effective communication in the military environment to permit coordination with Fleet user and test pilot community.

(16) Skill to transfer the knowledge of the complex issues of flight simulation to other aero flight SME specialists.

(17) Knowledge and experience necessary to provide consultation and engineering analysis to support Government planning for future flight simulation systems of unusual complexity.

(18) Skill to provide consultation and training for other flight simulation SME specialist and other acquisition program personnel as required.

B.3.5.6 Flight Simulation Tactical Environment Expert (Engineer/Scientist V)

In addition to the education, experience, and qualifications listed for the Sr. Aeronautical Simulation Engineer, the following qualifications are required for the Flight Simulation Tactical Environment Expert:

a. EDUCATION - Post-graduate engineer with an advanced degree in aerospace engineering or equivalent with specialized training in aircraft stability and control, control theory, aerodynamics, and flight test methodology.

b. EXPERIENCE

(1) A minimum of fifteen (15) years engineering experience in aerospace sciences pertaining to modeling and simulation engineering during which a high level of technical competency and highly developed judgment has been demonstrated.

(2) Extensive additional education and/or experience indicative of in-depth knowledge and expertise in the area of training systems and related hardware/software related to both fixed and rotary wing aircraft.

(3) Has experience of peripheral flight system disciplines relevant to training system development, particularly vehicle propulsion, mechanical design, and human factors engineering as related to man-machine interactions including displays, cockpit design and layout, and human perception and reaction to motion as pertaining to pilot cueing and control.

(4) Extensive experience in all aspects of flight simulation modeling, data acquisition and utilization, and testing for a broad range of military training systems, especially in support of systems acquisitions.

(5) Experience in applying the knowledge of human perception to the design of flight simulation systems to support training in a wide variety of military tasks.

(6) Experience in organizing information for effective use by engineers and other technical professionals.

(7) Familiar with software development.

(8) Knowledgeable of a wide range of non-engineering, non-scientific information in the form of Federal Acquisition Regulations, Military Standards, DOD/DON/NAVAIR policies, directives, and instructions and must be able to determine the applicability of these documents to assignments.

(9) Knowledge of advanced methods of flight simulation implementation and validation adequate to solve new and previously unsolved problems which are unusually difficult and which do not yield to standard accepted methods.

(10) Knowledge of aerodynamics, flight dynamics, kinematics, physics, real-time flight simulation methods, real-time computing hardware and software, flight test methods and technologies, control system design, aircraft flying qualities and testing, aircraft piloting skills and techniques, military roles and missions, military training systems and training methods.

(11) Skill in translating flight simulation training requirements to perceptual requirements and in turn to flight simulation system characteristics.

(12) Specific knowledge and experience in the areas of servo control, digital computers, human physiology and human factors, as each would apply to flight simulation.

(13) Perform engineering analysis of relationships between flight simulation, cockpit motion simulation, visual simulation and other simulation areas to establish critical performance parameters for all elements of the system affecting integration of the system, especially in areas for which no technical guidelines exist.

(14) Knowledge of military vehicle and weapon system operator training procedures, techniques and requirements.

(15) Skill in effective communication in the military environment to permit coordination with Fleet user and test pilot community.

(16) Ability to transfer the knowledge of the complex issues of flight simulation to other aero flight SME specialists.

(17) Knowledge and experience necessary to provide consultation and engineering analysis to support Government planning for future flight simulation systems of unusual complexity.

(18) Ability to provide consultation and training for other flight simulation SME specialist and other acquisition program personnel as required.

(19) Knowledge of complex aircraft and missile player dynamic models, including tactical doctrine and logic, model performance, instructional interface, advanced methods of obtaining design data and validation methods.

(20) Knowledge of computer generated and semi-automated force implementations.

B.3.5.7 Aircrew Training Devices Instructor (Pilot)

a. Education – B.S. or higher

b. Experience

(1) Piloting skills in aircraft type

(2) Specific knowledge of aircraft systems and NATOPS procedures

(3) Specific knowledge and experience in the areas of military roles and missions, military training systems and training requirements for aircraft type

(4) Skills in effective communication in the military environment to permit coordination with Fleet user and test pilot community

(5) Ability to provide consultation and training for other flight simulation SME specialist and other acquisition program personnel as required

B.3.5.8 Master Interoperability Engineer (Engineer/Scientist IV)

a. EDUCATION – M.S. in electronics engineering, computer engineering, computer science, or equivalent.

b. EXPERIENCE

(1) A minimum of three (3) years of experience in software development where producing distributed interoperable software applications was predominately required. Has developed software that provides the ability for distributed applications to communicate.

(2) Must possess a commanding understanding of the Open System Interconnect (OSI) network layers, middleware, run time infrastructure, common object request brokering and interoperability standards associated with modeling and simulation used in training systems.

(3) Proficient in C, C++, C#, shell (e.g. PEARL) and Java programming languages.

(4) Experience in Windows and sockets programming.

(5) Experience in developing software using both Microsoft Windows and Linux operating systems.

(6) Experience in developing software using XML, and HTML.

(7) Experience in using tools for software development, configuration management, and diagnostics.

(8) Knowledge of, and experience in, software engineering processes.

(9) Must understand the CMMI process.

c. SKILLS

(1) Software background skills including High Level Architecture (HLA), Distributed Interactive Simulation (DIS), Defense Modeling and Simulation Office (DMSO) HLA 1.3 Interface Standard, Virtual Tech Corp. NG Pro Run Time Infrastructure (RTI).

(2) Demonstrate a command of Open System Interconnect (OSI) network layers, middleware, run time infrastructure, common object request brokering and interoperability standards associated with modeling and simulation used in training systems.

(3) Proficient in C, C++, C#, shell (e.g. PEARL) and Java programming languages.

(4) Experience developing software in both Microsoft Windows and Linux operating systems.

(5) Experience using tools for software development, configuration management, and diagnostics, including OMDT.

(6) Knowledge of, and experience in, software engineering processes.

(7) Understanding of the CMMI process.

(8) Software background skills including HLA, DIS, Defense Modeling and Simulation Office (DMSO) HLA 1.3 Interface Standard, Virtual Tech Corp. NG Pro RTI.

(9) Familiar with Commercial Off the Shelf (COTS) Interoperability test tools.

B.3.5.9 Interoperability Engineer (Engineer/Scientist II)

a. EDUCATION – B.S. in electronics engineering, computer engineering, computer science, or equivalent.

b. EXPERIENCE

(1) A minimum of one (1) year of experience in software development where producing distributed interoperable software applications was predominately required.

(2) Must possess an understanding of the Open System Interconnect (OSI) network layers, middleware, run time infrastructure, common object request brokering and interoperability standards associated with modeling and simulation used in training systems.

(3) Proficient in C, C++, C#, shell (e.g. PEARL) and Java programming languages.

(4) Experience in Windows and sockets programming.

(5) Experience in developing software using both Microsoft Windows and Linux operating systems.

(6) Experience in developing software using XML, and HTML.

(7) Experience in using tools for software development, configuration management, and diagnostics.

(8) Knowledge of, and experience in, software engineering processes.

(9) Must understand the CMMI process.

c. SKILLS

(1) Software background skills including High Level Architecture (HLA), Distributed Interactive Simulation (DIS), Defense Modeling and Simulation Office (DMSO) HLA 1.3 Interface Standard, Virtual Tech Corp. NG Pro Run Time Infrastructure (RTI).

(2) Demonstrate an understanding of Open System Interconnect (OSI) network layers, middleware, run time infrastructure, common object request brokering and interoperability standards associated with modeling and simulation used in training systems.

(3) Proficient in C, C++, C#, shell (e.g. PEARL) and Java programming languages.

(4) Experience developing software in both Microsoft Windows and Linux operating systems.

(5) Experience using tools for software development, configuration management, and diagnostics, including OMDT.

(6) Knowledge of, and experience in, software engineering processes.

(7) Understanding of the CMMI process.

(8) Software background skills including HLA, DIS, Defense Modeling and Simulation Office (DMSO) HLA 1.3 Interface Standard, Virtual Tech Corp. NG Pro RTI.

(9) Familiar with Commercial Off the Shelf (COTS) Interoperability test tools.

B.3.6 Systems Analysis Support

B.3.6.1 Systems Analyst

a. EDUCATION – B.S. in electronics engineering, computer engineering, computer science, physics, or equivalent.

b. EXPERIENCE

(1) A minimum of one (1) year experience analyzing systems.

(10) Has conducted analyses to gain knowledge in technologies, processes, or designs.

(11) Knowledge of systems and software engineering.

(12) Experience in troubleshooting systems.

(13) Experience in analyzing data and drawing conclusions.

(14) Experience in conducting experiments using the scientific method.

(15) Experience with scientific applications where software was used to conduct experiments.

(16) Knowledge skills in math modeling and statistical methods.

(17) Knowledge of current technological developments/trends in area of expertise

(18) Knowledge to provide technical guidance in area of expertise.

(19) Understands how to interpret requirements, prepare system specifications, and resolve design issues.

(20) Understands and can interpret software written in at least one high level programming language.

(21).

B.3.7 Computer/Electronics Engineering

B.3.7.1 Computer/Electronics Engineer (Engineer/Scientist II)

a. EDUCATION – B.S. in Electronics engineering or computer engineering or equivalent.

b. EXPERIENCE

(1) Proven hands-on graphics programming experience.

(2) Must have the experience in developing creative and unique graphics software and hardware solutions from concept to completion to solve complex simulation and modeling problems as required for the development of weapons simulation systems.

(3) Working knowledge of graphics principles including: database construction, object manipulation, world coordinates, viewing coordinates, perspective, 3-D to 2-D projections, transformations, translation and rotations, texture mapping, lighting, shading, and Z-buffering.

(4) Experience with and thorough understanding and working knowledge of the Windows NT and Windows 2000 operating system. A working knowledge of the Unix operating system is desirable. Must have a thorough understanding and working knowledge of state-of-the-art Personal computer (PC)-based 3-D graphics acceleration platforms and hardware components such as those produced by E&S, Quantum, SGI, and NVIDIA.

(5) Proven hands-on expert knowledge in 3-D graphics software development and systems integration with advanced software packages and technologies such as C/Win32, C++/MFC, OpenGL, OpenGVS, VEGA, PeopleShop, and Multigen.

(6) General knowledge and experience in developing complete weapon simulation systems from system concept to completion (systems development, system integration, system testing, and system demonstration). Demonstrated expert knowledge in real-time simulation software, graphics programming, multi-threaded programming, networking, weapon tracking systems, virtual environment database modeling and development and integration of new technology.

(7) Knowledge and understanding of software integration issues. Experience in software integration.

(8) Working knowledge of digital sound systems, audio systems, and video production and-processing methods.

(9) Experience identifying new applications and development techniques to achieve advances in immersive technologies; integrating and coordinating the work of multi-disciplinary teams of academia, industry, and government; and designing and implementing innovative hardware and software components into viable test beds for training system evaluations.

(10) Skills to develop technically sound plans and solutions to research problems and to present analyses and recommendations in a clear and convincing manner - orally and in writing.

(11) Must have a general background of experience and knowledge of naval training and warfare systems; the range of man-equipment functions required and associated training requirements, and the research questions, which stem from the operations and training situations.

(12) Knowledgeable of a wide range of non-scientific information in the form of Federal Acquisition Regulations, Military Standards, DOD/DON/NAVAIR Orlando TSD policies, directives, and instructions and must be able to determine the applicability of these documents to assignments.

B.3.8 Research Psychology

B.3.8.1 Senior Research Psychologist (Subject Matter Expert 1)

a. EDUCATION – Advanced Degree in Psychology or equivalent

b. EXPERIENCE

(1) Must have advanced training in Psychology consisting of a combination of training and work experience in experimental, cognitive, industrial/organizational, educational, or human factors psychology. In particular, training and experience in statistics, experimental design, training or educational technology, human cognition, and computer hardware/software technological developments are important.

(2) Three (3) years of general experience in professional, technical research, or training evaluation work, which has provided a general background in the field of research and management of research. In addition to these basic requirements, the Senior Research Psychologist must have had a minimum of three years of specialized experience in areas of training research, human factors, human performance, experimental/applied psychology, human cognition, or training systems analysis. In general, this experience should have demonstrated that the Senior Research Psychologist has acquired and successfully applied a practical and theoretical knowledge of experimental/applied psychology and human factors practices and techniques in the conduct of progressively difficult research problems.

(3) Must have published articles in technical reports and/or journals and reported to professional organizations on projects that have been valuable contributions to psychological, human performance, and training technologies.

(4) Must have the skills to develop technically sound plans and solutions to research problems and to present analyses and recommendations in a clear and convincing manner - both orally and in writing.

(5) Must have a general background of experience and knowledge of naval training and warfare systems, the range of man-equipment functions required and associated training requirements, and also, possess the skill to posit the research questions which stem from the operational and training situations.

(6) Possess knowledge of a wide range of nonscientific information in the form of Federal Acquisition Regulations, Military Standards, DOD/DON/NAVAIR Orlando TSD policies, directives, and instructions and must possess knowledge in the application of these documents to assignments.

B.3.8.2 Research Psychologist (Subject Matter Expert 1)

a. EDUCATION – B.S. in Psychology or equivalent

b. EXPERIENCE

(1) Possess the skills to apply knowledge of human factors methods, experimental design, and psychological principles of learning, simulation, decision making and applied behavioral analysis and instructional design in order to develop training systems.

(2) Possess the skills to analyze, plan, schedule and conduct research to develop training techniques and technology for training systems.

(3) Knowledge of psychological principles, cognitive theory research methods, statistics, human performance, and training technology.

B.3.8.3 Research Psychologist Assistant (Subject Matter Expert 1)

a. EDUCATION – B.S. in Psychology or equivalent

b. EXPERIENCE

(1) Ability to collect and analyze experimental data.

(2) Knowledge of psychological principles, research methods, and statistics.

B.3.9 Instructional Systems

B.3.9.1 Instructional Systems Designer (Training Specialist II/Senior Instructional Systems Designer (Training Specialist) III

a. EDUCATION AND EXPERIENCE - A degree in Education or related field with twenty four (24) hours in specific education areas. Instructional Systems major is preferable. The twenty four (24) hours must fall within learning theory, instructional design, instructional development, evaluation, computers in education, and include four (4) of these five (5) categories.

Instructional Systems Designer:

Degree with	Years of Experience
MA/MS/MEd	2
BA/BS	3

Senior Instructional Systems Designer:

Degree with	Years of Experience
PhD/EdD	3
MA/MS/MEd	4
BA/BS	6

a. Practical knowledge and skill in the application of a wide range of analytical techniques, especially Instructional Systems Design procedures, for the functional design of a variety of military training, and training support systems and equipment, for the development of training strategies, which may include new training media, to support both existing and emerging weapon systems.

b. Practical knowledge and skill in the application of education and training principles to develop and evaluate alternative multimedia solutions for a variety of complex training problems utilizing both standard and nonstandard approaches including the application of advanced technology.

c. Practical knowledge and skill in the evaluation of web based training (WBT) for interactive courseware to design products, e.g., flowcharts, storyboards, and computer program design documents.

d. Practical knowledge and skill in interpersonal communications with civilian and military personnel, including oral briefings/presentations, listening techniques, and developing written material, especially technical reports documenting research and analysis performed, e.g., MIL-PRF-29612 and MIL-HDBK-29612.

e. Practical knowledge of DOD and Navy guidance documents used in the development and acquisition of analytical products, training systems and equipment.

f. Practical knowledge of processes such as ISD, NTSP, and Top Down Functional Analysis (TDFA) to support training program developers and other technical support personnel.

B.3.9.2 Instructional Systems Administrator (Technical Writer I)

a. EDUCATION AND EXPERIENCE –

(1) High school education or equivalent as a minimum.

(2) Practical knowledge and skill in interpersonal communications with civilian and military personnel including the development of oral briefings/presentations, listening techniques, and developing written material, especially technical reports documenting research and analysis performed, e.g., MIL-PRF-29612 and MIL-HDBK-29612.

(3) Practical knowledge of the Instructional System Development process.

(4) Practical knowledge and skill in developing procurement package components to include specifications, proposal plans, Statements of Work, Schedules, Contract Data Requirements Lists, and other documents required for the specific acquisition tasks.

(5) Practical knowledge and skill in supporting fleet interface data collection, data compilation, data analysis, and analysis report writing.

(6) Practical knowledge and skill in Microsoft Office Suite software to produce charts, graphs, databases, or other products for data summarization purposes.

	Years of Experience
Instructional Systems Administrator	4

B.3.10 Industrial/Organization Psychologist (Subject Matter Expert 1)

a. EDUCATION AND EXPERIENCE - A degree in Psychology with twenty four (24) hours in specific education, testing, evaluation, and instructional systems areas. The twenty four

(24) hours must fall within learning theory, instructional design, instructional development, evaluation, statistics, survey design, human factors, testing, and computers.

Senior Industrial/Organizational Psychologist:

Degree with	Years of Experience
PhD	2
MA/MS	4
BA/BS	6

B.3.11 Training Specialist/Subject Matter Expert (Training Specialist II)

a. EDUCATION AND EXPERIENCE –

(1) A degree or certificate from civilian or military schools and sufficient related experience to qualify as an SME in the specific weapons platform and systems, subsystems, or equipment.

(2) Experience in curriculum development or classroom instruction in the field of specialty required for the project.

	Years of Experience
Training Specialist/Subject Matter Expert	4

B.3.12 Training Analyst (Training Specialist II)

EXPERIENCE

Experience in curriculum development or classroom instruction.

	Years of Experience
Training Analyst	4
Sr. Training Analyst	6

a. Practical knowledge and skill in the application of Instructional Systems Design principles applied to the functional design and development of a variety of military training and training support systems and equipment which support both existing and emerging weapon systems.

b. Practical knowledge and skill in the application of education and training principles to develop and evaluate alternative multimedia solutions.

c. Practical knowledge and skill in the evaluation of web based training (WBT) for interactive courseware to design products, e.g., flowcharts, storyboards, and computer program design documents.

d. Practical knowledge and skill in interpersonal communications with civilian and military personnel, including oral briefings/presentations, listening techniques, and developing

written material, especially technical reports documenting research and analysis performed, e.g., MIL-PRF-29612 and MIL-HDBK-29612.

e. Practical knowledge of DOD and Navy guidance documents used in the development and acquisition of analytical products, training systems and equipment.

f. Practical knowledge of processes such as ISD, NTSP, and Top-Down Functional Analysis (TDFA) to support training program developers and other technical support personnel.

g. Practical knowledge of instructional teaching methods and media as used in military schoolhouse settings.

B.3.13 Graphic Artist

a. EDUCATION - AA/AS/Certificate/degree in Graphic Design, Computer Graphics, or related areas.

b. EXPERIENCE

(1) Required – One (1) year practical experience with an AA/AS/Certificate/degree in Graphic Design, Computer Graphics, or related area.

(2) Required – Three (3) year practical experience with No degree.

B.3.14 Web Development Support

B.3.14.1 Web Developer (Computer Programmer III)

a. EDUCATION - B.S. or higher degree in Computer Science, Computer Engineering, or Management Information Systems have at least five (5) years of applied web development experience. Four (4) years of additional applied database administration experience may be substituted for the formal degree requirement.

b. EXPERIENCE

(1) Experienced in designing and developing web applications for business solutions and supporting various application server environments.

(2) In-depth knowledge of programming, with experience in ExtJS, ColdFusion, HTML, SQL, JavaScript, CSS.

(3) Hands-on experience with IE, Firefox, IIS Web and Oracle database environments.

(4) Skilled in prioritizing and managing multiple tasks simultaneously while mastering innovative software and tools.

(5) Proven ability to deliver high quality products and services on schedule and under budget.

(6) Self-motivated team player with excellent verbal and written communication skills.

(7) Working knowledge of Navy/NAVAIR/NAWCTSD's policies and procedures preferred.

c. CERTIFICATION

(1) In accordance with DOD 8570.10M, must hold applicable certification for IAT Level I to include commercial certification and current Microsoft Server certification.

B.3.14.2 Web Developer (Computer Programmer IV)

In addition to the education, experience, and qualifications listed for the Web Developer, the following qualifications are required for the Senior Web Developer:

(1) Degree in computer science or computer engineering.

(2) Minimum of 10 years supporting web users and web requirements.

(3) Hands-on experience with Web support in a Microsoft Windows Server environment as it relates to web servers.

(4) In-depth understanding of setup and configuration of web and application servers in a virtual environment.

(5) Detailed Windows based hardware and software knowledge to include solving hardware conflicts, integrating peripheral equipment and network problem solving.

(6) Minimum 10 Years of Experience with HTML/Cold Fusion/JAVA/SQL/JavaScript/CSS/Flash programming.

(7) Minimum 10 Years of Experience with IE, Firefox, Safari, IIS Web environments.

(8) Minimum 10 Years of Experience with UNIX administration, preferably Linux types.

(9) Hands-on experience with configuring and integrating search engine software and appliances (i.e. Google Appliance).

B.3.15 Quality Assurance Support (Engineer/Scientist IV)

a. EDUCATION

(1) Bachelor's degree required.

(2) Certifications desired: Quality Auditor, Quality Engineer, Quality Improvement Associate, and Six Sigma.

b. EXPERIENCE

(1) In-depth knowledge of and implementation of quality assurance standards.
(2) Developing quality assurance policies and procedures.
(3) Devising sampling procedures and directions for recording and reporting quality data.
(4) Reviewing the implementation and efficiency of quality and inspection systems.
(5) Planning, conducting and monitoring testing and inspection of materials and products to ensure finished product quality.
(6) Reviewing and assessing projects/product related documents to ensure finished product quality.
(7) Documenting internal audits and other quality assurance activities.
(8) Investigating non-conformance issues.
(9) Collecting and compiling statistical quality data.
(10) Analyzing data to identify areas for improvement.
(11) Developing, recommending and monitoring corrective and preventive actions.
(12) Preparing reports to communicate outcomes of quality activities.

(13) Identifying training needs and organize training interventions to meet quality standards.
(14) Evaluating audit findings and implement appropriate corrective actions.
(15) Monitoring risk management activities.
(16) Assuring ongoing compliance with quality and industry regulatory requirements.
(17) Experience with quality inspection, auditing and testing.
(18) Experience with implementing corrective action programs

B.4 **Information Assurance Engineering**

The contractor shall be proficient and have a complete understanding operating DOD vulnerability assessment tools such as Defense Information Systems Agency (DISA) Gold Disk and Security Readiness Review scripts, and Security Content Automation Protocol (SCAP) compliance checker EyeRetina scanner. The Contractor shall possess a working knowledge of the Joint Air Force-Army-Navy Manual for Special Access Program, the Intelligence Community Information Technology Systems Risk Management Certification and Accreditation and Department of Defense Intelligence Information System (DODIIS). The Contractor shall possess a working knowledge in Information Assurance products validated and certified by the Common Criteria and the National Information Assurance Partnership organizations.

B.4.1 Information Assurance Analyst

a. EDUCATION - B.S. in engineering, computer science or mathematics
b. EXPERIENCE
(1) Minimum 5 years of engineering experience with at least 2 years of Information Assurance (IA) experience.
(2) Experience in DOD Information Assurance Certification and Accreditation Process (DIACAP) DODI 8510.01.
(3) Complete understanding of Information Assurance controls and implementation delineated in DODI 8500.1 and DODI 8500.2.
(4) Skill to perform penetration tests and vulnerability assessments using EyeRetina vulnerability scanner, Defense Information Systems Agency (DISA) Gold Disk, the Security Content Automation Protocol (SCAP) Compliance Checker and Security Readiness Review (SRR) scripts.
(5) Experience implementing operating systems and network devices security configuration in accordance with Defense Information Systems Agency (DISA) approved Security Technical Implementation Guides.
(6) Skill to perform IA certification test, security audits and risk analysis and developing mitigation strategies for DOD information systems.
(7) Have working knowledge of the Clinger-Cohen Act, the Federal Information Security Management Act (FISMA) and all IA implications that must be met to comply with the Information Security policies and laws,
(8) Possess DOD Approved Baseline Certification as Information Assurance Technical Level II in accordance with DOD 8570.01-M. (i.e. CAP , GSLC, or Security+).

B.4.2 Information Assurance Analyst, Senior

a. EDUCATION - B.S. in engineering, computer science or mathematics
b. EXPERIENCE
(1) Minimum 10 years of engineering experience with at least 5 years of Information Assurance (IA) experience.
(2) DOD Information Assurance Certification and Accreditation Process (DIACAP) DODI 8510.01.
(3) Complete understanding of Information Assurance controls and implementation delineated in DODI 8500.1 and DODI 8500.2.
(4) Skill to perform penetration tests and vulnerability assessments using EyeRetina vulnerability scanner, Defense Information Systems Agency (DISA) Gold Disk, the Security Content Automation Protocol (SCAP) Compliance Checker and Security Readiness Review (SRR) scripts.
(5) Experience implementing operating systems and network devices security configuration in accordance with Defense Information Systems Agency (DISA) approved Security Technical Implementation Guides.
(6) Experience performing IA certification test, security audits and risk analysis and developing mitigation strategies for DOD Information Systems (IS).
(7) Experience preparing certification letters and Memoranda of Agreement (MoA) with system owners for interface and networking implementations.
(8) Experience in the development of IA related acquisition documents and in the evaluation of products and services. Ability to identify Common Criteria and National Information Assurance Partnership (NIAP) certified technologies.
(9) Familiar with the Joint Air Force-Army-Navy Manual (JAFAN) for Special Access Program, the Intelligence Community Information Technology Systems Risk Management Certification and Accreditation and Department of Defense Intelligence Information System (DODIIS) processes.
(10) Have working knowledge of the Clinger-Cohen Act, the Federal Information Security Management Act (FISMA) and all IA implications that must be met to comply with the Information Security policies and laws.
(11) Possess DOD Approved Baseline Certification as Information Assurance Manager Level II in accordance with DOD 8570.01-M. (i.e. CISSP, GSLC, CAP, CASP or CISM)

B.5 **Test Engineer**

Applies engineering principles to investigate, analyze, plan, design, develop, implement, test and/or evaluate training systems and related sub-systems. Reviews and prepares engineering and technical plans, analyses, reports, change proposals, and other technical documentation. Applies engineering experience to perform functions such as system integration, configuration management, acceptance testing, developmental testing or capabilities based testing. Analyzes, designs, develops, implements, tests and/or evaluates automated data processing software related to engineering or functional requirements of aircraft flight control systems, system integration, configuration management, weapon systems, associated support systems, or management information systems. Assignments may involve test and evaluation of hardware and/or software related to engineering or functional requirements of training systems.

a. EDUCATION

(1) B.S. or higher degree in Engineering. In lieu of a degree, 4 Years of Experience must be in the area test and evaluation.

b. EXPERIENCE

Preferred direct experience in one or a combination of the following areas: training systems, aircraft system/subsystem development test and evaluation, or aircraft flight controls.

NOTE: All degrees and certificates must be received from an accredited program/institution.